Canada's International Development Research Centre's Eco-Health Projects with Latin Americans

Origins, Development and Challenges

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ABSTRACT

Background: Since its founding in 1970, Canada's International Development Research Centre (IDRC) has supported research by concerned Latin American researchers on environments and human health relationships. Framing of such relationships has changed through different periods.

Methods: Participant observation, bibliographic searches, document review, and interviews with key IDRC staff.

Findings: From the early years of multiple different projects, IDRC developed more focussed interest in tropical diseases, pesticides, agriculture and human health in the 1980s. The United Nations Conference on Sustainable Development in the early 1990s gave impetus to examination of links between ecosystems and human health or "EcoHealth". Projects in Latin America built on earlier work but extended it in methods (transdisciplinarity, community participation, gendered approach) and scope (broader land use and development paradigm issues tackled). A key IDRC-funded activity in Latin America was "EcoSalud", an Ecuadorian effort, which has worked with farming communities, agricultural researchers, health practitioners and local politicians to advance integrated pest management, better recognize and treat poisonings and improve pesticide-related policies.

Ongoing challenges include: mobilizing sufficient resources for the primary prevention focus of EcoHealth activities when primary care infrastructure remains stretched, promoting micro-level change in diverse communities and ecosystems, and addressing power structures at the global level that profoundly affect environmental change.

MeSH terms: Environmental health; developing countries; agriculture; pesticides; Latin America

La traduction du résumé se trouve à la fin de l'article.

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Acknowledgements: Multiple conversations with colleagues at IDRC, in public health history, and part of EcoSalud I, EcoSalud bridge and EcoSalud II. Financial support from IDRC, USAID, and FAO to EcoSalud projects.

This article is part of a peer-reviewed insert funded by SSHRC and CIHR-IPPH.

Canada's International Development Research Centre (IDRC) was created through an act of parliament in 1970, riding the Pearson and Trudeau waves of internationalism that reflected Canadians' wider engagement in the world. The brainchild of Maurice Strong, who reorganized Canada's external aid efforts, IDRC was constituted as an independent institution with an international Board of Governors (roughly equal numbers from developing and developed countries) to set policies and priorities. IDRC's mission was "...to initiate, encourage, support and conduct research into the problems of the developing regions of the world and into the means of applying and adapting scientific, technical and other knowledge to the economic and social advancement of those regions..."¹ IDRC's distinct role, in contrast to other research funding and aid agencies, was to champion "research for development".

IDRC has placed primary emphasis on supporting scholars and researchers in "southern" developing countries to address specific development problems, sometimes in collaboration with Canadian and other "northern" scientists.² Between 1971 and 2001, IDRC funded 1,957 research projects directed and managed by Latin America and Caribbean researchers and institutions in 49 countries with a value of more than CDN \$372.1 million (see Latin America and Caribbean region section of www.idrc.org). Among those projects focussing on environments and human health, IDRC has increasingly championed an Ecohealth approach to understanding and improving the determinants of health.³

In order to understand the roots of this approach and its manifestations, we conducted bibliographic searches of IDRC's library holdings, EMBase and MEDLINE for relevant environment and health research in Latin America that indicated involvement of Canadian colleagues. Key informant interviews were conducted with Gilles Forget, IDRC division leader, program officer, and now regional representative, and Jim Chauvin, former IDRC program officer and assistant to the IDRC president. The authors' experiences of participation in advisory committees, projects, conferences, workshops, and student award training sessions both in Latin America and Canada supplemented these sources.

TABLE I

Periods in IDRC-funded Environment and Health-related Research for Development

Periods	Global Context	Canada and Latin American Relations	IDRC Context	Health and Environments Framing
Existing paradigms (1970s)	Development agenda Women's movement	Expansion of Canadian business interests and trade, first major political refugee influxes from Latin America.	Information and technology for health and development.	Predominantly tropical disease and water and sanitation focus. Nutrition in agriculture division.
Incorporating work and toxic concerns (1980s to early 90s)	Worker health and safety movement Environmental movements, e.g., Pesticide Action Network-RAPAL TriLateral Commission	Solidarity movements with Central American struggles for change; role of churches and substantial Latin American immigration to Canada; public health associations relationships. Growing development of Canadian role in the Americas.	Increasing role of community participation and primary health (care). Funding growth to crisis by end of decade.	Water technology. Appropriate technology for health. Occupational health. Environments, health, and agriculture links.
Redefinition and rebuilding (early 1990s to present)	Agenda 21 and UNCED New Economic Order Anti-Globalization movements	NAFTA and other free trade area negotiations; Environment Commission reports on performance.	Agenda 21 Agency, Health with and for Sustainable Development.	Ecohealth approach incorporating ecosystems, transdisciplinarity, gender and community participation.

In this analysis, we characterize into three broad periods the scope of research and knowledge transfer activity relevant to environments and human health since IDRC's founding (see Table I).

Existing Paradigms – The 1970s

Initially, the IDRC's Population and Health Sciences Division focussed on demographic and fertility research, in keeping with the "population control" ethos of the time.⁴ An Environmental Health and Disease Prevention program was added in 1973 with a focus on prevention of major tropical diseases, paralleling activity of the World Health Organization (WHO), and improving rural sanitation and water supplies, a major interest of the World Bank and the Canadian International Development Agency well into the 1980s.⁵ Early projects included: evaluating water treatment plant performance, designing low-cost waste-water treatment approaches, and preparing a regional information system on community water supply and waste handling (through the Pan American Health Organization's [PAHO] Centre for Sanitary Engineering and Environmental Sciences); and designing sanitary education programs to combat malabsorption syndromes among children (through PAHO's Central American and Panamanian Institute of Nutrition).⁶ From 1971-1981, 15% of IDRC funds went through the Health Sciences Division, with 22% allocated to tropical disease (especially Chagas disease, cutaneous leishmaniasis, and gastroenteritis), 8% to rural water supply and sanitation, and 7% to environmental

health, in general.⁷ Environment and health topics were also integral to other IDRC divisions, particularly the Agriculture, Food and Nutrition Sciences, Social Sciences, and Information Sciences divisions.

Incorporating Work and Toxic Concerns – The 1980s

Unions in Canada, Latin America, and elsewhere had voiced occupational health and safety concerns in the late 1970s, and Latin American researchers devoted increasing attention to work environments as important determinants of human health.⁸ In 1980, IDRC added an Occupational Health Program to the Health Sciences Division and, in 1983, it hired a Québécois human toxicologist, Gilles Forget. Although Forget had a laboratory background, he forged into the broader field of work health and safety with regional IDRC representatives. Latin American researchers became intensely involved in mining health issues, particularly relevant to growing Canadian commercial interests during the 1980s. IDRC's foray into occupational health was reported by those involved to have important positive effects on research institutions, investigators' careers, programs, and country policies for improving the working environment.⁹

Forget's strong interest in chemical use in developing countries led to expanded funding on the human health impact of pesticide use in intensified agricultural production. IDRC's fostering of information sharing, through farmer education, technology development (such as new back-

pack sprayers) and system approaches, via global monitoring frameworks, culminated in a meeting in Ottawa in 1990 where numerous Latin American researchers shared findings (see Table II).¹⁰

In 1987, a new director, Richard Wilson, came to IDRC from the WHO and close involvement in the Essential National Health Research agenda. Wilson was intent on moving away from overtly medical research and breaking down the barriers between disciplinary groups. IDRC's Health Sciences Division was reorganized into three functional and interlocking programs based on a holistic model of the ecology of health: 1) health and the community; 2) health systems; and 3) health and the environment. The last program was asked to prepare IDRC's only contribution to the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in June 1992. IDRC's document outlined the highly interdependent nature of human health, population, poverty and environmental degradation, citing a number of centre-supported projects conducted by Latin American researchers (see Table II).¹¹ It was complemented by a discussion paper prepared by the Canadian International Development Agency's policy branch,¹⁶ which highlighted environmental sustainability and social sustainability (including health) as two of five pillars of a sustainable development framework.

Redefinition in the 1990s

At the UNCED meeting in Rio, Prime Minister Brian Mulroney announced that

TABLE II

Tropical Disease, Water and Sanitation, and Pesticide-related IDRC-funded Research Projects in Latin America (1980s to early 90s)
(extracted from Forget^{10,11})

Environment and Health Problem	Location(s) (years)	Research Team	Project Findings
Triatomid bugs capable of transmitting Chagas' disease invade human dwellings. Periodic spraying with imported pesticides costly, toxic and not sustainable.	Paraguay (and Brazil) (1970s-80s)	Multi-disciplinary research team from Health Sciences Research Institute (Universidad Nacional de Asunción) and Appropriate Technology Centre (Universidad Católica Nuestra Señora de la Asunción)	Chagas' disease can be controlled through: 1) popular education 2) single, initial fumigation of existing homes to kill all resident triatomids 3) dwelling renovation to make inhospitable for triatomid bugs, and home maintenance.
Indiscriminate defecation practices contaminate drinking water and housing with pathogenic organisms causing diarrhoea.	Guatemala (1980s)	Mesoamerican Institute of Studies in Appropriate Technology (CEMAT).	Modified version of Vietnamese double-vault latrine can kill pathogens in composting process. Fecal material excellent fertilizer, improving agricultural yield. Latrine abandonment problems demand ongoing support through community networks.
Fecal contamination of drinking water makes water testing mandatory.	Network of scientists, laboratories and communities 1983 including Brazil, Chile, Peru and Canada. Continued into WaterTox network of laboratories in 1996.		Water quality can be tested rapidly, affordably and reliably by trained community members, using three simple methods. Laboratory guides developed. ¹²
Sandflies, which inhabit deforested zones, transmit leishmaniasis to humans from infected domestic and wild animals through bites.	Peruvian Andes (started in 1970s, through to late 80s)	Multidisciplinary research team from Universidad Peruana Cayetano Heredia, Alexander Von Humbolt Tropical Medicine Institute, Peruvian Ministry of Health and University of British Columbia.	A new sensitive ELISA assay was developed and validated for leishmaniasis. Transmission was related to working near ravines in agricultural land and grazing fields. Sandfly infestation can be reduced through plantings of eucalyptus trees. Local health centres can engage in education, early diagnosis and simplified treatment.
Inappropriate pesticide use in small farmer agriculture	Lowlands, valley and altiplano of Bolivia, by INSO since 1976, IDRC mid-1980s ¹³	Instituto Nacional de Salud Ocupacional (INSO), Ministry of Public Health and Social Security	Lack of awareness of risks of pesticides; inadequate use and storage practices; rudimentary conditions made safe use difficult; important proportion of agricultural workers with low cholinesterase; need for education and poisoning surveillance.
	Antioquia region, Columbia mid-1980s ¹⁴	Instituto Nacional de Salud	Paraquat users suffered from pulmonary obstructive disease in greater proportions than non-users, despite exposure levels within acceptable ranges.
	Mala coastal valley, Peru. Primary health care since 1983, occupational health from 1988 ¹⁵	Medical, agricultural and social scientists, Huayana Institute for Development, Lima and Ministry of Health	Mutual reinforcement of research and educational processes, understanding not only the behaviour related to pesticide use among apple growers but also the latter's interpretations of their actions and symptoms.

IDRC's terms of reference would expand to help developing countries prepare for and implement the Agenda 21 environmental action plan. IDRC and CIDA were conjoined to undertake an analysis of Agenda 21.¹⁷ The stocktaking by IDRC¹⁸ categorized active projects by Agenda 21 themes, designating over fifty percent as directly related to Agenda 21. Protection and Promotion of Human Health (chapter 6 of Agenda 21) included programs on health and environment, protecting vulnerable groups, control of communicable diseases, water and sanitation, nutrition, impacts of toxic chemicals including pesticides, and occupational health in developing countries.

Yet IDRC itself was entering tough times financially, fuelled by the recession of the early 1990s and reductions in Canada's overseas development assistance contributions. In 1992, the new IDRC president was faced with cutting staff, centralizing decision-making, collapsing divisions, and reducing health research

resources. Don de Seigny, an IDRC tropical disease researcher, had been reading about "ecosystem health". Ecosystem approaches had an extensive history in the North American Great Lakes basin joining Canada and the United States, embodying a respect for the self-regulatory capacity of ecosystems, understanding human activity impacts, and forging a pragmatic compromise between detailed reductionism and holistic meaning. The Scientific Advisory Board of the International Joint Commission sponsored work on a framework for conceptualizing links between human health and ecosystems: environmental hazards and environmental burden of illness, ecosystem conditions for human well-being, and environmental justice consonant with human core values.¹⁹

Coupling the framework with notions of safe water, food security, and natural resources management, Don de Seigny and Gilles Forget led the formulation of an EcoHealth Initiative at IDRC. The EcoHealth approach incorporated gender

analysis and community participation, common among development organizations and in IDRC's primary health care work. Partially seconded existing staff and new recruits from different disciplinary backgrounds systematically applied the framework and garnered support for EcoHealth among international donor organizations. An extensive supplement to a peer-reviewed scientific journal summarized the experience being gained, fed back IDRC's re-formulation, and promoted interaction with the research community.³

EcoHealth in Latin America

In a continent where environmental devastation had accompanied European "development",²⁰ public health scholars in Latin America had already critiqued development models that directly resulted in environmental contamination, destructive exploitation of natural resources, and massive shifts in population.²¹ Moreover, they had come to see the inextricable linkages between social and natural systems under

TABLE III

IDRC's Ecosystem Health Approaches to Human Health Program Initiative Projects in Latin America (mid-1990s to 2000+)

Ecosystem Health Challenge	Location(s)	Research Team	Project Findings
Deforestation and erosion in headwaters of Amazon increases mercury loadings. Methylation and bio-accumulation in fish lead to mercury poisoning of riparian communities.	Amazonian basin, Brazil ²⁵	Multiple teams have worked in the Amazon, including combinations of Brazilian, Canadian, Danish and Ecuadorian partners. Usually natural scientists, biologists, toxicologists and epidemiologists.	Although mercury use in artesanal mining is important in some locations, deforestation effects are greatest. Mercury neurotoxicity varies by community location and consumption patterns. Fruit consumption can reduce absorption.
Severe economic crisis challenged local community capacity to manage environmental health risks, including dengue fever outbreak.	Havana, Cuba ²⁶	Cuban National Institute of Hygiene, Epidemiology and Microbiology and Canadian Universities of Manitoba and British Columbia.	Improved municipal infrastructure and extended monitoring of environmental conditions and entomological factors, and clinical occurrence through community participation provided strong prevention and surveillance capacity.
Deforestation, fecal contamination of drinking water, declining soil fertility, difficult community, Mapuche and state relationships.	Mapuche communities, Chile ²⁷	Centre on SocioCultural Studies and Centre for Sustainable Development of the Universidad Católica de Temuco; Asociación Indígena de Rüpükura; Centre of Education for the Development of the South.	Conflicts among leadership and with state organizations not respectful of community voices were impeding responses. Increased negotiation and modest investment levered both infrastructural and cultural changes.
Centuries-long history of gold mining activities hazardous to miners, heavy metal contamination of environment, family health risk.	Communities along Puyango River, Ecuador ²⁸	Physicians, geologists, sociologists and community development workers with Fundación Salud Ambiente y Desarrollo, Quito; Municipal authorities.	Unsafe conditions (injuries) in small-scale mines; environmental contamination and human blood levels of lead high, with neurobehavioural effects; municipal mobilization to deal with problems.
Land use changes lead to more commercially oriented agriculture, lower corn yields and loss of traditional, wild/ uncultivated foods, with accompanying nutritional consequences.	Southern Veracruz, Mexico ²⁹	Multidisciplinary team from Montecillo post-graduate college including a sociologist, biologist, anthropologist, nutritionist, social worker and local team of promotores de salud. Input from National Nutrition Institute.	Differential gender access to wild foods through hunting (more male), fishing (more female) and gathering (both, more female) all high in essential nutrients. Less use in more highly acculturated indigenous community. Community health promotion initiated.
Inadequate use of high toxicity pesticides in cash potato crop production in mountainous region with attendant high rates of pesticide poisonings.	Carchi, northern Ecuador ³⁰	Multidisciplinary team including agricultural economists, soil scientists, chemists, occupational physicians, epidemiologists, rural sociologists, agronomists, teacher and nurse.	Multiple exposure pathways in agricultural settings, desire to change among farm families, integrated pest and crop management approaches reduce pesticide use and increase crop returns, socio-political challenges loom large.

different technological development scenarios.²² In an IDRC-commissioned review, a Chilean health researcher extensively examined research on environmental health impacts in Latin America.²³ In his recommendations, Belmar strongly advocated for greater financing of environmental health impact studies, coordinated through the then important PAHO-sponsored Center for Human Ecology and Health.²⁴

Once EcoHealth project funding became available, environment and health researchers in Latin America were quick to respond (see Table III). For example, deforestation practices in the Brazilian Amazon were linked to increased fish contamination with mercury and human neurotoxic effects, with extensions to the Peruvian Amazon.³¹

IDRC became particularly interested in developing agroecosystems approaches to improving human health.³² IDRC had long supported research on food production and agricultural productivity in conjunction with centres of the Consultative Group on International Agricultural Research (CGIAR). As the CGIAR centres

were criticized for inadequate consideration of sustainability, they became open to considering more holistic approaches to agriculture, human health and ecosystems (www.futureharvest.org). The International Tropical Agricultural Institute (CIAT, based in Colombia) examined the complex interplay of resource exploitation, shifting land ownership, changing agricultural practices, and other forces on both the biosphere and human nutrition.³³ The International Potato Centre (CIP) (www.cip.org) reached out to soil scientists, agricultural economists and health scientists to conduct research on the impacts of current potato production practices.³⁴

EcoSalud

Ecuadorian health researchers had been concerned about inappropriate pesticide use in agriculture since the 1980s. Even though Ecuador was a signatory to the Food and Agriculture Organization's (FAO-WHO) Codex Alimentarius, environmental scientists had found significant pesticide residues on market produce, including methamidophos levels that were

eight times the recommended Codex levels,³⁵ prompting education by environmental groups.³⁶ The Ecuadorian Institute for Social Security's occupational health section found death due to toxic effects of non-medicinal substances, including pesticides, was the fifth most common cause among rural affiliates.³⁷ Starting in the mid-1980s, Ecuador's Ministry of Public Health made pesticide poisoning a notifiable illness.³⁸

In cash crop potato production in Carchi, northern Ecuador, pesticides used included organophosphorus insecticides, such as methamidophos, and carbamate insecticides, like carbofuran, with high WHO toxicity ratings.³⁹ An average of seven applications, with three products per application, were made each crop cycle with little knowledge of risks and alternatives or use of personal protective equipment (PPE). Pesticide contamination resulted in considerable health problems ranging from subclinical neurotoxicity to hospitalizations and deaths.⁴⁰

While presenting our work at an IDRC co-sponsored international conference on pesticide use in developing countries in

San José, Costa Rica, we heard of a new funding stream to move CGIAR centres to agroecosystem health approaches. Seeing the usefulness of applying the emerging integrative EcoHealth framework being promoted by IDRC, we worked with universities, NGOs, development donors and international agencies,⁴¹ researchers at the national agricultural research institute, and a new participatory farmer education specialist at CIP, to develop a project entitled "EcoSalud" (EcoHealth in Spanish).

We engaged members of three rural communities, demonstrating pesticide exposure pathways via applicators' hands and face, children's faces and household objects. Eco-Salud staff found high quality PPE (mask, gloves, overalls and pants) and provided a no-interest, two-month credit towards their purchase. They visited homes to discuss pesticide safety strategies with individual families, in particular improved storage of pesticides and PPE, use of a low-volume and constant pressure nozzle that provides better coverage with less pesticide, and more consistent hygienic practices.⁴² Farmer Field Schools (FFS), a methodology borrowed from the Food and Agriculture Organization's experience in Southeast Asia and Africa and recently adapted to the Andes, engaged farmers in learning about alternative technologies and careful monitoring before spraying. Farmers were able to decrease the frequency of pesticide sprays in integrated pest management plots while maintaining or increasing production.

We organized both provincial and national forums where farmers presented their experiences. The FAO co-sponsored workshops with farmers and municipal authorities to analyze the Code of Conduct in the Use of Pesticides, to report on incomplete adherence and to formulate responses.⁴³ To scale up the impact of the action research and broaden its policy impact, EcoSalud II has expanded coverage to include multiple stakeholders in three provinces of Ecuador.

Spreading the Word

Support for Ecohealth approaches has expanded, both in Canada as it grapples with vector-borne diseases⁴⁴ and across the hemisphere in considering environmental health indicators.⁴⁵ Along with the United Nations Environment Program, IDRC

sponsored regional consultations in Brazil, Canada, and Venezuela in 1999 and 2000 to generate strategies for implementing the approach.⁴⁶ IDRC's president, Maureen O'Neil, in her Address to the Joint Meeting of the Health and Environment Ministries of the Americas in Ottawa on March 5, 2002, promoted the EcoHealth approach as policy-relevant, action-oriented, collaborative research. She cited examples from Ecuador, Brazil and Mexico, urging participation in the International Forum on Ecosystem Approaches to Human Health held in Montreal in May, 2003. Papers from this multi-stakeholder and researcher forum were summarized in an IDRC-sponsored supplement of the peer-reviewed journal *EcoHealth*⁴⁷ and IDRC's EcoHealth team leader wrote a book describing the approach.⁴⁸

CIDA supported EcoHealth work in Cuba through the Association of Universities and Colleges of Canada partnership agreement, building on EcoHealth projects.⁴⁹ IDRC's Agropolis (Cities Feeding People, Urban and Peri-Urban Agriculture) framed work in terms of urban ecosystems and health, building on cross-staffing with the EcoHealth initiative. Prime examples of holistic approaches to urban ecosystems can be found in Rosario, Argentina, and Cienfuegos, Cuba (Red Latinoamericana de Investigaciones en Agricultura Urbana www.ipes.org/aguila/). During 2003-2004, IDRC sponsored training workshops in Ecosystem Health in conjunction with the Mexican National Institute of Public Health. In collaboration with other large donors and the WHO Social Economic and Behavioural research group of the Special Program for Research and Training in Tropical Diseases, IDRC helped representatives of six Ecohealth projects attend the International Congress on Dengue in Cuba in May, 2004. IDRC has fostered graduate student interest through field research funding awards, promoting EcoHealth as a conceptual framework, research approach and intervention practice. Most recently, it co-funded a Community of Practice in Ecosystem Health (COPEH) in Latin America and the Caribbean⁵⁰ through the Canadian Global Health Research Initiative, shifting health research funding to focus on "upstream" physical and social factors that impinge on health in the longer term.⁵¹

Reflections and Challenges

Some might argue that IDRC's adoption of an EcoHealth framework saved its health research funding when official interest in primary care was dwindling both at IDRC and globally, much as the WHO had to adapt to the interests and discourse of its main funders.⁵² Certainly in Latin America, structural adjustment and the growth of private health care markets have resulted in deficits in public health and primary care personnel and resources.⁵³ Yet to turn to "the environment" as both source of disease burden and livelihoods might generate a "risk discourse" that countenances reduced resource commitments to health services.⁵⁴ Alternatively, EcoHealth could be seen as IDRC's best possible contribution to "Health for All", given its limited budget compared to that of bilateral and multilateral agencies.

IDRC has long valued the development of both technological innovation and local capacity elements. Although "hard" technological innovation is a leading priority among major health care funders, changing the determinants of health likely requires "soft" approaches more akin to social change.⁵⁵ Focussing on building community capacity necessitates slower processes, as communities and their members respond differentially, depending upon education, social status, and economic position.⁵⁶ Can the holistic, almost transcendent systems' frameworks promoted by EcoHealth, reminiscent of other ideals in the "new public health",⁵⁴ deal with such heterogeneity? Can IDRC's EcoHealth group mobilize sufficient resources for promotion of the widespread micro-level change that may be required to achieve longer-term sustainability?

A further challenge is the pressure of market capitalism, which pervades even remote agricultural communities, often with the face of multinational pesticide companies. Despite the state's traditional role in regulating for public health,⁵⁷ its powers in a globalizing world have been eroded. Although reduction of toxic pesticide use made sense at a field level for Ecuadorian farmers and at a regional level for communities and health authorities, movement globally is slow.⁵⁸ Despite sound proposals for international monitors of pesticide sales and use,⁵⁹ headway has been limited and only on prior notification

of toxicity. Crucial issues of differential power and knowledge between different stakeholders have to be confronted,⁶⁰ including in EcoHealth discourse. Is the current EcoHealth framework capable of guiding analyses that tie local conditions to the global level, where geo-politics drive environmental change and market penetration?⁶¹ EcoHealth's ability to effectively grapple with complex policy environments may depend on its linkages with other research programs that IDRC sponsors on equity, globalization, and international markets.

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RÉSUMÉ

Contexte : Depuis sa fondation au Canada en 1970, le Centre de recherches pour le développement international (CRDI) appuie les travaux de chercheurs latino-américains préoccupés par les liens entre l'environnement et la santé humaine. Les points de vue selon lesquels on envisage ces liens ont changé au fil du temps.

Méthode : Observation de participants, recherches bibliographiques, examen de documents et entretiens avec des responsables au CRDI.

Constatations : Au début, le CRDI finançait toutes sortes de projets, mais au cours des années 1980, il a concentré son action sur les maladies tropicales, les pesticides, l'agriculture et la santé humaine. La Conférence des Nations Unies sur l'environnement et le développement (CNUCED), au début des années 1990, a incité le Centre à examiner les liens entre les écosystèmes et la santé humaine (« l'écosanté »). Dès lors, les projets menés en Amérique latine se sont appuyés sur des travaux antérieurs, mais en élargissant leurs méthodes (par la transdisciplinarité, la participation communautaire, l'approche sexospécifique) et leur portée (en abordant aussi les grands enjeux de l'affectation des sols et du développement). L'une des principales activités financées par le CRDI en Amérique latine était « EcoSalud », en Équateur, un projet de collaboration avec les collectivités agricoles, les agronomes, les professionnels de la santé et la classe politique locale visant à promouvoir la lutte antiparasitaire intégrée, à mieux reconnaître et traiter les empoisonnements et à améliorer les politiques d'usage des pesticides.

Défis qu'il reste à relever : Mobiliser des ressources suffisantes pour mener le volet de prévention primaire des activités d'écosanté alors que les infrastructures de soins primaires sont étirées au maximum, promouvoir des changements micro-niveau au sein de collectivités et d'écosystèmes très différents, et remettre en question, à l'échelle mondiale, les structures du pouvoir qui ont des conséquences profondes sur les modifications de l'environnement.