

# How University Projects Produce Development Results: Lessons from 20 Years of Canada-China Cooperation in Higher Education<sup>1</sup>

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**ABSTRACT** – *While aid agencies may remain sceptical about university projects, a review of 20 years of Canada-China higher education cooperation demonstrates that, when they are successful, higher-education interventions can produce durable and far-reaching results. The review highlights the “knowledge advantage” of university cooperation, including the inherent results multipliers of teaching and research, and the multi-generational nature of project participants. CIDA and Canadian universities should move from a transactional to a strategic relationship. Engaging a new generation of faculty and students, renovating centres of expertise and building knowledge networks are important tasks for the future.*

**RÉSUMÉ** – *Bien que les organismes d'aide demeurent sceptiques devant les projets universitaires, une étude portant sur 20 ans de coopération en enseignement supérieur entre le Canada et la Chine a démontré que ces interventions, lorsqu'elles réussissent, peuvent avoir des résultats durables et une portée considérable. L'étude met en évidence l'avantage du savoir inhérent à la coopération universitaire, notamment par l'effet multiplicateur qu'entraîne l'association de l'enseignement et de la recherche, ainsi que par la dimension multigénérationnelle des participants du projet. L'ACDI et les universités canadiennes auraient tout intérêt à établir des relations stratégiques plutôt que transactionnelles comme elles le font actuellement. Les défis futurs consisteront à renouveler le corps professoral, à attirer de nouveaux étudiants, à consolider les centres d'expertise et à mettre sur pied des réseaux de savoir.*

## INTRODUCTION

How do university projects produce meaningful development results? Are there comparative advantages (or disadvantages) associated with university development interventions that are not associated with the interventions of other types of organizations, such as governments, non-governmental organizations, or private companies? More specifically, how can Canadian university interventions be designed in the future to promote effective collaborative capacity building and participatory development with developing-country partner institutions? This paper attempts to answer these questions in light of recent research on 20 years of experience in higher education cooperation between Canada and China. Implications are drawn for Canadian aid policy and practice.

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## I. CHANGING POLICY CONTEXT

Increased accountability requirements, tight budgets, and the unpredictable demands of a volatile, post-Cold War (and now post-September 11) world, among other factors, have prompted most bilateral and multilateral development agencies to redefine the way they spend their money. In this new “aid-effectiveness” discourse, for better or for worse, program approaches – such as poverty reduction strategy papers (PRSPs) and sector-wide approaches (SWAPs) – which involve the pooling of donor funds under “country-driven” (i.e., by the national government) coordination are gaining favour over single-donor, stand-alone project funding. In general, current aid-effectiveness efforts privilege macro-level policy interventions over micro-level grassroots development. Also prominent in this new discourse, and its related practice, is the role of knowledge management as a lever for change both inside and outside aid agencies (see CIDA 2001; OECD 2000; World Bank 2001a).

For aid agencies, knowledge management is viewed as a process of capturing, organizing, sharing, and making accessible the technical expertise, experience, and skills of employers, partners, and clients in the service of sustainable development and poverty reduction (CIDA 2002; World Bank 2001b). In practice, knowledge management is actually a process of human interaction, wherein tacit or uncodified knowledge is collected, systematized, and disseminated, often through work groups and “communities of practice” (O’Dell et al. 1998). Information technology facilitates knowledge management; e-mail, intranets, portals, the Internet, groupware, and other tools are increasingly used to manage knowledge (Stewart 2001). The knowledge network is a tool that blends human participation with technology in order to manage and spread knowledge in a specialized subject area (Stein et al. 2001).

At the same time, however, two other trends that influenced aid considerably in the 1990s retain important roles in international development. One of these is results-based management (RBM), an approach to designing, implementing, and evaluating development interventions that focuses on their outcomes and impacts rather than their inputs and activities (CIDA 1996). In its ideal form, RBM is implemented flexibly and encourages continuous learning and improvements by implementers (World Bank 1998). Most development agencies have now integrated RBM into their key management tools, notably the logical framework. Broadly speaking, development results are of three types – short-term outputs, medium-term outcomes, and long-term impacts – and are produced at three sometimes interacting levels: macro (policy), meso (institutional), and micro (community, household, individual) (Jackson 2000).

The second trend that remains important in the aid policy context is participatory development, also “mainstreamed” in the 1990s (Blackburn et al. 2000). It is now common practice for bilateral and multilateral institutions to require some form of stakeholder involvement in the intervention cycle, for both instrumental (i.e., to optimize project success) and/or transformative (i.e., to promote stakeholder empowerment) reasons. Within this tradition, there remain strong advocates for the ultimate “beneficiaries” of aid – the rural and urban poor – and especially marginalized and silenced groups within those constituencies (women, children, the disabled, minorities), to be considered *primary* stakeholders and given special opportunities and supports to participate (e.g., Chambers 1997). As participatory development has been more widely applied, it has also attracted new criticisms, particularly of forms of practice that are systemically biased against gender-equality (Cornwall 2001), or which are co-opted and manipulated by donor interests (Cooke and Kothari 2001).

In a very real sense, participatory development also provided policy and institutional space for the elaboration and testing, in the last half of the 1990s, of the concept of capacity development as a programming strategy (Lavergne and Saxby 2001). Capacity can be assessed and built at four

inter-related levels: individual, organizational, sector or network, and the enabling environment. Accordingly, capacity development activities can range from staff development and training, to strategic planning and governance reform, to sector-support organizations, to policy dialogue and regulatory reform (see Bolger 2000). Some agencies, including CIDA, are exploring the application of capacity development strategies and accountability regimes to program approaches such as SWAPS (Lavergne 2002; Lavergne and Saxby 2001).

While these trends were altering the character of development assistance, another set of changes was underway. In the 1990s, Canadian universities became much more *international* in character, recruiting larger numbers of overseas students, offering programs with more advanced international content, and expanding their involvement in cross-national and global research projects. During this same period, these institutions were also confronted with severe provincial government funding cuts, resulting in the under-investment in infrastructure and full-time faculty, delays in hiring younger professors, and much greater (and controversial) reliance on corporate funding of research (CAUT 1999). The 1990s also saw a serious deterioration in the relationship between CIDA and the university sector in Canada. The sector's share of Canadian Official Development Assistance (ODA) grants and contracts declined (Bond and Lemasson 1999) while, in contrast, that of Canadian NGOs rose.

By the end of the decade, it appeared that, apart from a few exceptions, CIDA and Canadian universities were cooperating and communicating with each other – and simply *understanding* each other – much less frequently and effectively than ever before. For their part, CIDA officials are unclear as to how universities can assist the agency in advancing new forms of aid effectiveness, RBM, participatory and capacity development. Moreover, the agency's preoccupation in recent years with basic education has often served to further distance it from higher education. On the university side, key players are sceptical of CIDA's long-term commitment to *any* set of policy priorities and operational procedures, and remain uncertain as to how they can cooperate productively with the aid program in the future.

## II. LESSONS FROM TWENTY YEARS OF CANADA-CHINA COOPERATION IN HIGHER EDUCATION

Some answers to these questions are suggested in the findings of a recent review of the experience of 20 years of cooperation between Canada and China in higher education.<sup>2</sup> The review analyzed in detail the files of 50 projects worth \$100 million, interviewed more than 70 key people, surveyed nearly 60 current and former project directors, commissioned background papers, and prepared the case studies of nine high-performing projects (Jackson et al. 2001).

Between 1981 and 2001, CIDA provided some \$250 million in grants (including \$150 million in bilateral funding) toward more than 100 joint initiatives between Canadian universities (and colleges) and Chinese universities (and institutes). This investment was concentrated primarily in the fields of management, environment, health, education, and governance. CIDA-funded projects were first located mainly in the rapidly-developing east coast of China and, later, though to a lesser extent, in the country's poorer western provinces.

In China, this 20-year period was characterized by economic reform and the opening of markets, and high per capita income growth in the coastal provinces, but also heightened rural-urban and

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<sup>2</sup> Earlier reviews of Canada–China cooperation in higher education were conducted by CIDA in 1991–1992 and by the Association of Universities and Colleges of Canada (AUCC) in the mid–1990s (Singer 1996).

west-east inequality. In the higher education sector, the period saw new laws and policies, major investment in infrastructure, increased research and scholarship funding, and extensive administrative reform (Wang 2001). While China's western universities generally remained underdeveloped, with few foreign linkages, the eastern universities attracted new government and private revenues and expanded their interactions with foreign institutions.

Against this backdrop, the program review found that, overall, Canada-China cooperation in higher education generated significant and, in a surprisingly large number of cases, far-reaching outcomes and impacts at the micro, meso, and macro levels. In particular, these interventions produced, tested, and disseminated across municipalities and provinces an array of innovative models in research, teaching, policy, and public services, especially in the areas of management, environment, health, engineering, agriculture, the sciences, energy, and education. In the course of this work, an estimated 37,000 Chinese scholars, researchers, and students were trained, in Canada and China, and became leaders in their disciplines and institutions. In fact, it was primarily through contacts and knowledge formed via university linkages in the 1980s that the CIDA bilateral program was able to elaborate, in the 1990s, more advanced projects in the fields of environment, governance, and other areas.

At the same time, the review identified a number of weaknesses in the performance of this portfolio of projects. First, these interventions too rarely made an impact on *national* policy. Second, with some notable exceptions, the projects did not do enough to advance gender equality. Third, projects were often expensive, carrying multiple levels of overhead. Fourth, relations between CIDA and the Canadian universities involved were too often transactional, and not learning-oriented and strategic. Finally, within interventions, budget decisions were often Canadian-controlled and not transparent to the Chinese partners.

The review documented an impressive range of meso-level, or institutional, results. CIDA-funded linkages with Canadian universities enabled Chinese higher education institutions to establish innovative teaching programs, develop more effective curricula, set up new research centres, test product prototypes, register patents, raise additional funds from diverse sources, and improve their management systems. These results were clustered at the faculty, school, department, or research-unit levels. Notable examples included the Nankai University's Business School, assisted by York University, Bethune-Laval Oncology Unit in Changchun, and rapeseed research at Huazhong University, in partnership with the University of Manitoba.

As many as one-third of the projects in the higher education portfolio were judged to have made significant impacts on policy. These results were generally concentrated in the preparation and promotion of new policies, laws, and regulations at the provincial or municipal levels, where their scale and reach were nonetheless sizable (given that in China these jurisdictions can be the size of small to medium nations). Among other things, higher education projects helped to shape transportation planning in Shanghai, eco-tourism in Hainan Province, and education management in Jilin Province. In ten percent of projects, *national* policy was decisively influenced in, for example, such areas as minority language education (see Boyd and Pan, this volume), watershed management, and nursing licensing.

China's ability and willingness to take institutional and policy innovations and apply them on a large scale was, and is, probably unique in the world. While Canadian universities were indeed fortunate to work with partners on the Chinese side with such strong drive to achieve rapid impacts, the Canadian partners also worked hard at fashioning derivatives of Canadian policies, programs, methods, and systems that were relevant to China's context and needs. Moreover, impacts often continued after Canadian funding terminated, both through the continuing advice

of senior Chinese scholars to government, and through follow-up project funding from Chinese research and government agencies.

The original purpose of the linkage projects in the early 1980s had been to broaden and deepen cooperation and understanding between China and Canada (Hoffman 2001), and in this mission, they succeeded impressively. A decade later, though, amid tight budgets and heightened accountability regimes, CIDA began to require that these interventions demonstrate their contribution to the agency's corporate priorities of poverty reduction, basic needs, gender equality, and other areas. In the mid 1990s, CIDA instituted project reporting on an RBM basis, and, after much irritation and effort over several years on the part of both funder and fundees, this requirement was fulfilled.

As expected, given their origins, a majority of interventions in the Canada-China higher education portfolio was found to have made an *indirect* rather than a direct contribution to poverty reduction. However, some projects generated *direct* poverty-reduction results. For example, the Rapeseed Project enabled farmers to plant three million hectares of new rapeseed varieties; low-income farmers who grew seeds for the project made up to ¥1500 more per hectare compared to growing other varieties. In another case, the Maternal and Child Health Project in Yunnan, advised by the University of Ottawa, trained professionals in rural areas who were able to save high-risk women and infants and help reduce neonatal and maternal mortality.

And, while most projects under-performed in terms of advancing gender equality, especially at the institutional and policy levels, a handful of interventions made innovative and important impacts in this area. In particular, a series of projects on women and the education of minorities, involving the Ontario Institute for Studies in Education (OISE) and both east-coast and western Chinese universities, established an active network of women scholars, many of whom went on to play key leadership roles in their institutions and fields of study.

### III. CHARACTERISTICS OF HIGH PERFORMING HIGHER EDUCATION INTERVENTIONS

The 20-year review examined in detail a small set of very successful Canada-China linkages. Findings from these case studies were used to build a composite picture of a high-performing higher education intervention. The core characteristics of a successful intervention were found to be:

- Ten to fifteen years of organized cooperation, including five to ten years of funded activities;
- High levels of partnership, mutual trust, and respect;
- Continuity of dedicated and skilled leadership;
- Effective leadership succession;
- Strong and active support of the senior leadership of the institutions;
- A critical mass of Chinese actors trained and deployed (professors, post-doctoral researchers, graduate students);
- Creation of an organizational/institutional vehicle through which skills and knowledge were applied or extended (project unit, degree program, institute, clinic, etc.);
- Close service and advisory ties to local and provincial governments, institutes, and enterprises;
- Systematic spreading of innovations, models, and methods across sectors, municipalities, enterprises, and provinces;
- Mobilization of significant non-CIDA resources;
- Leverage on policy, through conferences and publications, as well as non-project-related advice by senior scholars to government consultations and committees.

In general, the review found that high-performing, higher education interventions drove results-generation in several ways, including:

- The multiplicity of results-chains within an initiative (via a degree-program teaching, professional training, student supervision, applied research, policy advice, and conference participation);
- The inherent results multipliers that teaching and research carry as project activities;
- The multi-generational nature of project participants (senior scholars, mid-career academics, junior professors, researchers, students);
- The institutional and policy leverage ultimately obtained by senior scholars.

What was pivotal, the review showed, was the extent to which the *Chinese institutions* demonstrated the characteristics of success and operationalized their results-generating processes, in interaction with the local context. Of course, the extent to which the Canadian partners displayed the characteristics of success mattered a great deal, as well. However, ultimately, the production of outcomes and impacts relied more on local resources and capacity than on foreign money and ideas. That is, while Canadian funds and models were crucial in generating research outputs, the *application and spread* of these outputs occurred later in the process, sometimes well after Canadian funds had been terminated. In most cases of significant dissemination of research outputs, national, provincial, and municipal governments provided the bulk of the funding and organizational capacity to spread the innovations. In this sense, the further away in the results chain from the outputs, the greater was the influence of Chinese institutions and resources.

Overall, the review concluded that, when they are successful, higher education projects can be powerful tools to achieve development objectives. Furthermore, these interventions can be intentionally designed to optimize the conditions and features that lead to significant and durable results on the ground, as well as value-for-money for funders.

#### IV. IMPLICATIONS FOR POLICY AND PRACTICE

Some important implications for policy and practice arise from the findings of the Canada-China higher education review. These implications are pertinent to both CIDA and Canadian universities. To be sure, it must be acknowledged that some unique features characterized the 20-year experience of cooperation between Canadian and Chinese universities. For one thing, China's status as two countries – one middle-income, the other poor – within one, along with its sheer size, render it unusual, to say the least. For another, the Chinese government's aggressive reform of, and investment in, the university sector during the 1990s were unparalleled elsewhere in the world. Third, the high-level of motivation and capacity on the part of Chinese institutions to absorb, adapt, apply, and replicate foreign-stimulated innovation were, and remain, unique, as well.

Nevertheless, the review highlighted that for CIDA and other aid agencies cooperation between Canadian and developing country universities draws on comparative advantages that other development actors do not possess. On both sides of the partnership, the core business of universities is inter-generational knowledge production and transfer. Universities are long-term, permanent institutions. They also tend to provide a socially liberal environment that encourages, among other things, freedom of expression, independent and critical inquiry, and (sometimes) gender equality – and can often do so even within a context of authoritarian, single-party politics, as in China.

It is important to note that international development cooperation accounts for only a small fraction of the everyday life and revenue base of universities. For international development to be

enhanced or expanded through universities, external funding is usually required. So too is recognition of this work as a legitimate scholarly pursuit, especially for younger faculty members seeking tenure and promotion.

More specifically, though, the review showed that, with appropriate design and capacity building on both sides, university cooperation can yield meaningful and durable development results. And the review showed *how* these results are produced in the case of successful interventions: multiple parallel results chains; the results multipliers inherent in teaching and research; the multi-generational nature of project participants; and the institutional and policy leverage of senior scholars – these are all key comparative advantages held by universities. Other actors, such as firms, NGOs, or governments, do not bring these assets to the development enterprise.

Furthermore, evidence from the review suggested that, under certain circumstances, university linkages can contribute to program-based approaches to poverty reduction, such as PRSPs and SWAPs. The Canada-Chinese experience showed that university linkages can strengthen institutions and generate policy impacts in regions and jurisdictions serving tens of millions of people. The review also indicated the potential of university partnerships to train local leaders, conduct social-science or applied-science research, convene policy dialogues, support civil society, and monitor the transparency and effectiveness of large-scale poverty-reduction efforts. In addition, universities can make special contributions to improving knowledge-management systems and to engaging young people in poverty-reduction work. For these and other reasons, CIDA should take steps to improve its understanding of, and interaction with, (and increase its financial support for) university cooperation, as a means of advancing the aid-effectiveness agenda. In the process, CIDA should prepare itself to receive and use universities' critical perspectives and research, as well as their operational contributions.

Likewise, the findings of the review indicated that it is time for Canadian universities to reset their relationship with CIDA. Interactions between the two sides should, to the extent possible, be shifted off the ground of contract transactions and political lobbying and onto the terrain of shared strategy and learning. Regular policy discussions on global development issues and alternatives – “de-linked” from specific country programs or project-funding decisions – between CIDA and the university sector would be one way of rebuilding mutual understanding and trust while, hopefully, also producing useful policy knowledge and institutional learning.

At the same time, Canadian universities must retool themselves for the future, in a world of complex and changing development needs. This requires mobilizing a new generation of faculty and students to this end. Younger professors seeking promotion and tenure should be given credit for project management, research, and publications associated with international development. New sources of funding should be sought to enable Canadian graduate students to carry out research in developing countries. Under the leadership of today's senior Canadian scholars, this new “cadre” of professors and students could form the human-resources platform for development cooperation by Canadian universities over the next half-century.

But more renewal is needed. As the China experience illustrates, organizational vehicles are essential to enable professors and students to build their own capacity and optimize their contribution to results. Canadian universities must therefore renovate their existing centres of excellence in international development, or set up new ones.

One best-practice example of a university-based centre that has kept pace with – and sometimes has outpaced – changes in development cooperation is that of the Coady International Institute at St. Francis Xavier University in Antigonish, Nova Scotia. Strategic leadership, diversified services and funding sources, and strong overseas partnerships have enabled the institute to build on its widely recognized, professional training programs in cooperative development, by integrating, in

recent years, new courses and research projects on gender equality, microenterprise, and microfinance, and asset-based community-development (Coyle 2000; Mathie and Cunningham 2002). In this process, the institute has renewed its dual character as both an engaged university unit and a development NGO.

One element missing from the Coady model, and from that of many similar development-cooperation centres, however, is the integration of its research and professional-development activities into the university's core teaching programs. Achieving such integration – and the synergies for students and faculty that could come with it – might be called the “centre-plus” model. This approach is worthy of much experimentation in the years ahead.

Furthermore, Canadian universities should learn more about, and then create and join, *knowledge networks*. Such structures can be used to organize the internal resources in a given university around development themes and issues, cutting across faculty and disciplinary lines and perhaps “dealing in” participants from outside the university, as well. Overseas, knowledge networks on key themes or issues operating in one or more developing countries are structures that promote the horizontal exchange of knowledge. As such, they are excellent vehicles in which Canadian universities can and should participate.

Research on knowledge networks indicates that the most effective of these structures generate innovation and learning precisely because their diverse memberships – scholars, policy makers, NGO staff, and community leaders – can conduct trans-disciplinary and trans-boundary research in practical matters, blurring the distinction between researcher and practitioner, and facilitating productive “encounters” between global and local knowledge. Flexible, long-term funding for such networks also serves to optimize the results of knowledge networks (Stein et al. 2001).

## CONCLUSION

When they are successful, university cooperation projects can produce long-lasting and far-reaching development results. Mutual trust and respect, continuity of strong leadership, training of a critical mass of local professors and students, use of an organizational vehicle (unit, program, institute, etc.) to apply and extend new knowledge, spreading of innovations across jurisdictions, mobilization of significant local resources, and leverage on policy by senior scholars characterize high-performing, higher education interventions. The comparative advantages of expanded university cooperation – what could be called the “knowledge advantage” – include multiple and parallel results chains, the inherent results multipliers of research and teaching, and the multi-generational nature of project participants.

In is in the interests of both CIDA and Canadian universities to shift their relationship from transactional and political interactions to a strategic and joint learning orientation. Universities in Canada can, potentially, play an important role in the aid-effectiveness era of program approaches. Mobilizing a new generation of faculty members and graduate students, renovating centres of expertise in development cooperation, and creating and joining knowledge networks are important steps that can and should be taken by Canada's university sector in preparing for the future. For its part, CIDA should work harder to better understand the sector, and provide Canadian universities with the flexible, long-term funding necessary for the production, together with developing-country universities, of meaningful development results.

## REFERENCES

- Blackburn, J., R. Chambers, and J. Gaventa (2000) "Mainstreaming Participation in Development," OED Working Paper Series No. 10, Washington, DC: Operations Evaluation Department, World Bank.
- Bolger, J. (2000) "Capacity Development," Hull: CIDA.
- Bond, S.G., and J.-P. Lemasson (eds.) (1999) *A New World of Knowledge: Canadian Universities and Globalization*, Ottawa: International Development Research Centre (IDRC).
- CAUT (Canadian Association of University Teachers) (1999) "Not in the Public Interest: University Finance in Canada, 1972-1998," Ottawa.
- Chambers, R. (1997) *Whose Reality Counts? Putting The First Last*, London: IT Publications.
- CIDA (Canadian International Development Agency) (2002) "Knowledge Management Secretariat," <[www.acdi-cida.gc.ca](http://www.acdi-cida.gc.ca)>, Hull.
- (2001) "Strengthening Aid Effectiveness: New Approaches to Canada's International Assistance Program," Hull.
- Cooke, B., and U. Kothari (eds.) (2001) *Participation: The New Tyranny?* London: Zed Books.
- Cornwall, A. (2001) "Making a Difference? Gender and Participatory Development," IDS Discussion Paper No. 378, Sussex University, Brighton: Institute of Development Studies.
- Coyle, M. (2000) "Microenterprise and Microfinance: Presenting a Global Perspective," Occasional Paper Series, St. Francis Xavier University, Antigonish: Coady International Institute.
- Hoffman, P. (2001) "From Start-Up to Melt Down: Personal Reflections on the History of China-Canada Higher Education Linkages," prepared for the Canada-China Higher Education Program Assessment, Hull: CIDA.
- Jackson, E.T. (2000) "The Front-End Costs and Downstream Benefits of Participatory Evaluation," in O. Feinstein and R. Picciotto (eds.) *Evaluation and Poverty Reduction: Proceedings of a World Bank Conference*, Washington, DC: World Bank, 115-26.
- Jackson, E.T., M. Gallant, X. Wang, and Y. Guo (2001) "Relationships, Respect, Results: Report of the Canada-China Higher Education Program Assessment," Hull: CIDA, China Program.
- Lavergne, R. (2002) "Results-Based Management and Accountability for Enhanced Aid Effectiveness: A Reference Paper for CIDA Officers Engaged in Capacity Development and Program-Based Approaches Such as SWAPS," Hull: CIDA, Policy Branch.
- Lavergne, R., and J. Saxby (2001) "Capacity Development: Vision and Implications," Occasional Paper Series No. 3, Hull: CIDA, Policy Branch.
- Mathie, A., and G. Cunningham (2002) "From Client to Citizens: Asset-Based Community Development as a Strategy for Community-Driven Development," Occasional Paper Series, St. Francis Xavier University, Antigonish: Coady International Institute.
- O'Dell, C., C. J. Grayson, and N. Essaiides (1998) *If Only We Knew What We Know*, New York: Free Press.
- OECD (Organization for Economic Cooperation and Development) (2000) *Development Cooperation: The DAC Journal*, 1:1, Paris.
- Singer, M. (1996) *Academic Relations Between Canada and China, 1970-1995*, Ottawa: Association of Universities and Colleges of Canada (AUCC).
- Stein, J.G., R. Stren, J. Fitzgibbon, and M. MacLean (2001) *Networks of Knowledge: Collaborative Innovation in International Learning*, Toronto: Institute of Public Administration of Canada and University of Toronto Press.
- Stewart, T.A. (2001) *The Wealth of Knowledge*, New York: Currency.
- Wang, X. (2001) "Assessment of Sino-Canadian University Linkages," prepared for the Canada-China Higher Education Program Assessment, Hull: CIDA.
- World Bank (2001a) "Poverty Reduction Strategy Papers," online toolkit, <[www.worldbank.org/poverty](http://www.worldbank.org/poverty)>, Washington, DC.
- (2001b) "Knowledge Management in the Bank" <[www.worldbank.org/ks](http://www.worldbank.org/ks)>, Washington, DC.
- (1998) "Report of the Committee on Aid Effectiveness," Washington, DC.