

**North-South Research Partnerships: Challenges,
Responses and Trends**

A Literature Review and Annotated Bibliography

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ABSTRACT

Many professionals involved in North-South development research projects lament the lack of studies on these partnerships to support critical reflection and the refining of approaches to collaboration. This review suggests that studies and evaluations of collaborative research endeavours are more plentiful, and their findings more instructive, than is often assumed. Still, significant issues remain to be explored. This paper provides an overview of the major issues and themes in the English literature on North-South development research partnerships, and identifies avenues for future research on the issue.

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EXECUTIVE SUMMARY

Many professionals involved in North-South development research projects lament the lack of studies on these partnerships to support critical reflection and the refining of approaches to collaboration. This review suggests that studies and evaluations of collaborative research endeavours are more plentiful, and their findings more instructive, than is often assumed. Still, significant issues remain to be explored. This paper provides an overview of the major issues and themes in the English literature on North-South development research partnerships, and identifies avenues for future research on the issue.

The literature reviewed in this paper includes program reports and evaluations; policies and principles for effective partnerships; conference reports; chapters in academic books; and articles in peer-reviewed journals. The majority of these articles analyze the experiences of key research partnerships and suggest avenues for improving collaborative work. They are typically published in journals on research management and methodology.

This review examines literature on different types of development research partnerships, and the major actors involved in collaborative research. Major types (structures) of North-South partnerships relevant to research include:

- Partnerships between individual researchers/research teams brought together to carry out a specific project (ranging from one-off co-authorship of research papers to large-scale, long-term inter-institutional research partnerships);
- Capacity-building partnerships (no direct research component) (may be focused on individual or institutional levels, e.g. institutional twinning);
- North-South research networks (formal and informal).

Beyond differences in the structure of North-South partnerships, collaborations also vary in terms of duration, sources of financial support, the degree of focus on advocacy and policymaking, and the frequency and intensity of interactions between Northern and Southern partners. Principal actors include individual researchers and research teams; research organizations (universities, NGOs and think tanks); Southern communities; policymakers; international organizations; and donors. The literature on donor approaches to supporting research cooperation is plentiful, especially in terms of the Canadian and Dutch experiences.

The review identifies key trends in the collaborative research landscape. As early as 1975, researchers have argued that collaborative research frameworks were often inadequate and counterproductive. They called for a reorientation of North-South partnerships so that collaborations could strengthen Southern institutions while producing more policy-relevant, critical research. Early calls were also raised for the

creation of mutually beneficial partnerships, supported with long-term, flexible and diversified funding. In varying degrees, over the course of the past three decades, these prescriptions have matured into discernable trends. For example, the production of policy-oriented research has emerged as a virtually uncontested goal, and partnerships are increasingly seen as an opportunity for developing the capacity of Northern and Southern researchers alike. Sector-specific trends are also evident. For instance, the literature demonstrates significant and sustained interest in partnerships in the fields of health and agricultural research, and rising interest in the field of science and technology. Despite increased donor interest in multi-disciplinary development research, the literature suggests that creating multi-disciplinary North-South partnerships and promoting inter-disciplinary dialogue remains a struggle.

The review also discusses the growing interest in concepts and theories closely related to North-South partnerships, including innovation theory, demand-led research, and “knowledge-based” approaches to development. The review examines the limited research on the motivations for partnership, as well as the much more abundant work on the ethics and politics of partnership. Much of this literature suggests that asymmetry between partners remains the principal obstacle to productive research collaboration. This asymmetry manifests itself in the form of inequitable access to information, training, funding, conferences, and publishing opportunities, as well as the disproportionate influence of Northern partners in project administration and budget management. Structural inequalities also clearly impact the process of selecting partners and setting the research agenda. In this connection, the literature on the ethics and politics of partnership also discusses the continued impacts of neo-colonialism and globalization on collaboration. Although these obstacles face researchers working in a wide range of fields, this review suggests that many of the scholars interested in the challenges of research partnerships appear to work in isolation from one another, with little inter-disciplinary dialogue.

As with development research more broadly, it is difficult to evaluate the precise impacts of North-South research partnerships. However, the literature suggests that conceptions of the success and impact of research partnerships are broadening. While the review highlights the considerable body of research on co-authorship, it also acknowledges widespread scepticism regarding the utility of co-publication as a measure of the health of a research partnership or collaboration strategy. By the same token, it is increasingly well-recognized that scientific advances are only one yardstick that can be used to measure the utility of a North-South partnership. Mutual capacity building and the translation of research results into policy interventions are more and more seen as significant achievements and indicators of success.

Finally, the review identifies knowledge gaps that deserve greater attention. The review underlines that the literature on North-South research partnerships is predominantly produced by Northerners. More in-depth examinations by Southern researchers of the questions and challenges surrounding partnerships would be an invaluable complement to the current review. Issues that would benefit from further research include:

- Inter-disciplinary dialogue on experiences with North-South research partnerships;
- The approaches of key donors including the United States and Japan, whose experiences do not appear to be well-documented in the literature;
- The changing role of North-South partnerships in “Southern” countries with increasingly robust national research communities (e.g. Brazil, India, China, South Africa);
- Southern institutional and governmental approaches to North-South partnerships (strategies, institutional policies, etc.);
- Alternative and emerging partnership structures and activities (e.g. the creation of university chairs, North-South journals, etc.);
- Researchers’ and institutions’ motivations for entering into North-South partnerships;
- Maximizing the potential of North-South research partnerships to be mutually beneficial;
- The challenge of designing collaborative research agendas that advance mutual interests, but are firmly rooted in Southern needs and priorities;
- Responses to the challenge of opening up partnership opportunities to non-traditional actors;
- The outputs and outcomes of North-South research partnerships (i.e. what is the “value-added” or strategic benefit of pursuing research through cooperative frameworks?).

INTRODUCTION

Many researchers and donors involved in North-South development research projects lament that there are very few studies on these partnerships to support critical reflection and the refining of approaches to collaboration.¹ This literature review and annotated bibliography suggest that studies and evaluations of collaborative research endeavours are more plentiful than is often assumed. However, significant gaps remain in the literature. Many scholars interested in the challenges of research partnerships appear to work in isolation from one another, with little inter-disciplinary dialogue. For example, while there are a considerable number of studies on North-South research partnerships in the fields of health and agriculture, opportunities have not been grasped to compare the experiences of each group. Furthermore, most of the literature on North-South research partnerships appears to have been produced by Northern or Northern-based researchers and institutions. Southern reflections on North-South research partnerships seem few and far between, although there may be studies by Southern scholars that are simply not available electronically or in Northern libraries.² This review aims to provide an overview of the major issues and themes in the literature on North-South development research partnerships, and identify avenues for future research on the issue.

Major types of studies and reflections on North-South research partnerships include program reports and evaluations (often produced by donors)³; discussions of policies and principles to guide effective partnerships⁴; reports from conferences on North-South partnerships⁵; and chapters in academic books and articles in peer-reviewed journals. The majority of these articles review the experiences of major research partnerships and suggest avenues for improving collaborative work. They are typically published in journals on research management and methodology.

¹ See for example Box, L. *To and Fro: International Cooperation in Research and Research on International Cooperation*. Maastricht: University of Maastricht, 2001.

² It should also be noted that the literature search undertaken for this review focused on English-language resources. Discussions of North-South development research partnerships may be more plentiful in other languages. For example, there is a rich body of French-language literature on North-South research partnerships.

³ See for example RAWOO. *Balancing Ownership and Partnership in Development Research: Review of 1999 and 2000*. The Hague: RAWOO, 2001.

⁴ See for example Swiss Commission for Research Partnership with Developing Countries. *Guidelines for Research in Partnership with Developing Countries*. Berne: Swiss Academy of Sciences, 1998.

⁵ See for example AUCC. *Highlighting the Impacts of North-South Research Collaboration among Canadian and Southern Higher Education Partners*. Ottawa: AUCC, 2006.

By way of terminology, I will draw on the definition of development research contained in *The Nature of Research at IDRC*: “development research is applied research that has the objective of leading directly to sustainable improvement in the quality of human existence, or basic research that results in an improved understanding of factors that affect development”.⁶ In this review, I will use the words “partnership” and “collaboration” interchangeably, to indicate the wide variety of arrangements that link researchers and research institutions in the global North and South. I will use the term “Southern” to denote researchers primarily based in the developing world, and the term “Northern” to signify those working principally in developed countries. To be sure, in practice the division between terms is not so neat: many researchers from the developing world were trained and work in the North. By the same token, many researchers from the North have relocated to South. These inter-regional movements, in addition to issues such as class and gender, undoubtedly shape researchers’ perspectives and their approach to development research. For more detailed perspectives on the terminology of partnership, see Kerr 1996, Ogden and Porter 2000 and Scholey 2006.⁷

Principal actors in collaborative research

The main actors in North-South development research partnerships include:

- (1) individual Southern and Northern researchers;
- (2) Southern and Northern research teams;
- (3) Southern and Northern research organizations (universities and NGOs, particularly think tanks);
- (4) communities directly affected by the research issue;
- (5) policymakers (local, national and international);
- (6) international organizations;
- (7) donors (bilateral donors, foundations, etc.).

In fields of study such as health research and the experimental sciences, the private sector is also a significant actor.⁸ Although not typically conceived of as actors, networks also play an essential role in instigating, sustaining, and disseminating research

⁶ Foley, J. C. Pestieau, V. Ramalingaswami, O. Slaymaker. *The Nature of Research at IDRC: Report of Research Ad Hoc Committee of the IDRC Board*. Ottawa: IDRC, 1998.

⁷ Ogden and Porter, for example, highlight the difference between individuals’ goals and concerns, and institutional needs and agendas in the context of research cooperation. They call the relationship between individual researchers “partnership”, and use the term “collaboration” to denote institutional relationships.

⁸ See for example Navaretti, G. B., and C. Carraro. "From Learning to Partnership: Multinational R&D Cooperation in Developing Countries." *Economic Innovation and New Technologies* 8 (1999). See also Sivamohan, M. V. K., and A. Hall. *Emerging Patterns and Partnerships of Private Sector and Public Science Activity for Horticulture Development in India: Reflections from some Case Studies*. Chatham: National Resources Institute, 1998.

partnerships.⁹ Various authors examine the principal challenges faced by these diverse actors, and the characteristics of their engagement in collaborative research. Emerging actors who are involved in North-South research partnerships, but do not appear to be discussed in-depth in the literature, include research councils, students, professional organizations, and publishers.

A significant number of publications on North-South research partnerships focus on the role of donors, with bilateral donors receiving the lion's share of scholars' attention. In addition to Canada's International Development Research Centre (IDRC), major donors involved in collaborative research include the Netherlands (DGIS and Rawoo), Sweden (SIDA/SAREC), the United Kingdom (DFID) and Switzerland. Since 2000, a number of studies and evaluations have also been released on the European Union's role as a supporter of development research partnerships.¹⁰ The Netherlands has a longstanding involvement in North-South research partnerships not only through the work of the Dutch Ministry of Foreign Affairs (DGIS), but also through the Netherlands Development Assistance Research Council (Rawoo).¹¹ Switzerland is increasing its contribution to North-South research partnerships through the work of the Commission for Research Partnerships with Developing Countries (KFPE) and the Swiss Agency for Development and Cooperation (SDC)-supported NCCR North-South. The NCCR North-South is a National Centre of Competence in Research dedicated to conducting and disseminating collaborative, disciplinary, interdisciplinary and transdisciplinary sustainable development research.¹²

The United States is also a major supporter of development research partnerships, but its role does not appear to have been extensively examined in the literature on North-South research collaboration. Equally, the roles of Japan and Australia do not appear to have been analyzed in depth. For more information on bilateral donors and collaborative development research, see the following section on "National and institutional approaches to supporting North-South research partnerships".

⁹ See for example Stone, D. "Special Edition on Global Knowledge and Advocacy Networks." *Global Networks* 2, no. 1 (2002). See also Stein, J. "Opening Networks in Closing Systems: Knowledge Networks and Public Policy." Ottawa: IDRC, 2003. Seguin, Singer and Daar's discussion of the role of Southern diasporas scientists in supporting research for development is another notable, albeit brief, contribution to this literature. See Seguin, B., P. Singer, and A. Daar. "Scientific Diasporas." *Science* 312, (2006).

¹⁰ See for example Bijker, W., C. Leonard, and Gerwackers. *Research and Technology for Development (RTD), through EU-ACP Policy Dialogue*. Maastricht: University of Maastricht, 2001. See also Hauck, V., and T. Land. *Beyond the Partnership Rhetoric: Reviewing Experiences and Policy Considerations for Implementing 'Genuine' Partnerships in North-South Cooperation*. Maastricht: European Centre for Development Policy Management, 2000.

¹¹ See DGIS. *Research and Development White Paper*. The Hague: DGIS, 1992. For a more current perspective on the Netherlands' involvement in development research partnerships, see RAWOO. *Making Development Research Pro-Poor: Review of 2001-2002*. The Hague: RAWOO, 2003.

¹² The National Centres of Competence in Research (NCCR) are a research instrument of the Swiss National Science Foundation. See <http://www.nccr-north-south.unibe.ch/>.

Multilateral organizations evade neat classification as “Northern” or “Southern”, but institutions such as the World Bank often work alongside Northern donor agencies to support development research partnerships. In many cases, international organizations help finance North-South collaborations, and the staff of multilateral agencies are often also involved as researchers. For example, King discusses the role of the World Bank in his article “Banking on Knowledge: The New Knowledge Projects of the World Bank.”¹³ In addition to bilateral and multilateral donors, foundations are crucial supporters of development research, and have attracted significant interest from scholars. In a theoretically detailed yet politically astute paper entitled “American Foundations and the Development of International Knowledge Networks”, Parmar examines the role of the Rockefeller, Carnegie and Ford Foundations in developing international knowledge networks. These networks have greatly influenced the South, and helped to consolidate US hegemony after WWII by nurturing pro-US values, methods and research institutions. Drawing on Gramscian theory and examples from Latin America, Indonesia and Africa, Parmar argues that these foundations solidified the “intellectual hegemony” of liberal internationalism, empirical research methodologies, and policy-oriented research.¹⁴

Looking beyond donors, several authors have investigated the rapidly expanding role of think tanks in research partnerships. For instance, Struyk discusses transnational networks of think tanks, noting their striking variety in terms of focus (regional or global), membership (open or restricted), and orientation (knowledge dissemination, tight policy focus, etc.). Struyk sets out a classification system for contemporary think-tank networks, in order to better understand their purposes and activities.¹⁵ Stone focuses on think tanks within transnational networks, pointing out that just as the number of think tanks around the world is increasing, networks of think tanks are expanding and diversifying, including in the South.¹⁶ As Mbabazi, MacLean and Shaw argue, think tanks are playing an increasingly important role in identifying, studying and responding to governance and human security challenges, particularly in Africa.¹⁷

Several authors have addressed the role of universities, particularly in Canada and Africa, in development research partnerships.¹⁸ Boothroyd and Angeles examine Canadian universities as key actors in advancing international development, including

¹³ King, K. "Banking on Knowledge: The New Knowledge Projects of the World Bank." *Compare* 32, no. 2 (2002).

¹⁴ Parmar, I. "American Foundations and the Development of International Knowledge Networks." *Global Networks* 2, no. 1 (2002).

¹⁵ Struyk, R. "Transnational Think-Tank Networks: Purpose, Membership and Cohesion." *Global Networks* 2, no. 1 (2002).

¹⁶ Stone, D. "Think Tanks Across Nations: The New Networks of Knowledge." *NIRA Review* 7, no. 1 (2000).

¹⁷ Mbabazi, P., S. J. MacLean, and T. M. Shaw. "Governance for Reconstruction in Africa: Challenges for Policy Communities and Coalitions." *Global Networks* 2, no. 1 (2002).

¹⁸ On African universities as actors in development research partnerships, see Nwamuo, C. "Capacity-Building through North-South Partnership in the African University Sector." *Capacity.Org* 6 (2000).

through North-South research partnerships. They suggest that the “push for the internationalization of [Canadian] universities does not necessarily address international development unless universities demonstrate a strong commitment to make development, and its related goals of poverty reduction, social justice, and global citizenship, central to their teaching, research and outreach functions.” The authors argue that Canadian universities could contribute more to development and strengthen their character as learning institutions by “structur[ing] more lasting partnerships with developing country institutions, [and] approach[ing] projects and partnerships in a spirit of mutual learning through engagement with complex social problems rather than as knowledge transfer exercises.”¹⁹ Northern and Southern universities’ diverse approaches to development are examined in more detail in the following sections on “National and institutional approaches to supporting North-South research partnerships” and “Research collaboration and capacity building”.

The collaborative research landscape: Trends

Writing in 1975, a contributor to the *International Social Science Journal* identified two related trends with significance for development research and training. The first was a growing commitment to self-reliance within Southern development research and training institutes. The second was increased interest in new forms of research and training collaboration between Northern and Southern institutions. Recognizing that contemporary approaches to collaboration were “inadequate and sometimes counter-productive”, the article identifies four lines of action to enhance development research and training activities:

- (1) a reorientation of research and training to focus on policy-relevant research that can be implemented to address “basic issues of development”;
- (2) a strengthening of Southern research and training institutions;
- (3) a change in donor policies to recognize the comparative advantage of collaborative research; provide long-term, flexible and diversified funding; include Southern researchers in decision-making on funding; and use research collaborations as an opportunity to investigate Northern policies that compound Southern challenges; and
- (4) the development of a “new basis for collaboration” that supports the creation of more selective, effective and mutually beneficial partnerships, which enable a broader and more critical approach.²⁰

In varying degrees, over the course of the past thirty-one years, these prescriptions have matured into discernable trends. For example, the orientation of donor policies and the

¹⁹ Boothroyd, P., and L. Angeles. "Canadian Universities and International Development: A Critical Look." *Canadian Journal of Development Studies* 24, no. 1 (2003).

²⁰ "New Forms of Collaboration in Development Research and Training." *International Social Science Journal* 27, no. 4 (1975).

elusiveness of equitable collaboration between Northern and Southern researchers remain deeply troubling issues for many observers.²¹ The literature on North-South research partnerships reveals significant changes in the types of partnerships supported by donors; the fields that attract high levels of funding; approaches to measuring or evaluating partnerships; and the conceptual frameworks guiding collaborative initiatives. In terms of the activities supported by donors, the 1970s and 1980s saw a much greater focus on institution building, particularly in the form of infrastructure development in Southern research institutions. While institution building remains an important area of support, many donors have heeded the call raised by scores of reputable researchers for support for sustained institutional and personal relationships between North and South.

In terms of fields of study, the literature on North-South partnerships reflects a significant interest in agricultural collaboration, particularly in the 1970s and 1980s. Writing in 2001, Hall *et al* argue that the goals of agricultural research for development have changed markedly over the past forty years. The goals have broadened from an initial, narrow focus on food production to espouse a much larger agenda that includes environmental degradation, poverty alleviation and social inclusion.²² Similarly, the scope of collaborative health research projects has widened considerably. The literature on North-South partnerships indicates a sustained interest in health research partnerships from the 1980s onwards. In particular, the late 1980s saw the instigation of a number of research partnerships on sexually transmitted diseases, including HIV/AIDS, which remain operational today. While the literature reveals a longstanding interest in collaboration in the field of science and technology, authors appear to have devoted much more attention to this issue since the mid-1990s.²³ Interest in science and technology partnerships was likely spurred by two significant United Nations reports on the issue: the 1999 UNCTAD *Common Vision for the Future of Science and Technology for Development*, and the 2001 UNDP Human Development Report entitled *Making New Technologies Work for Human Development*.²⁴

²¹ See for example Impact-International. "Controlling Academia: US 'Aid' as Neo-Colonialism." <http://www.africa2000.com/IMPACT/educate.html>. See also Avilés, L. A. "Epidemiology as Discourse: The Politics of Development Institutions in the Epidemiological Profile of El Salvador." *Journal of Epidemiology and Community Health* 55 (2001).

²² Hall, A. J., N. G. Clark, V. Rasheed Sulaiman, M. V. K. Sivamohan, and B. Yoganand. "New Agendas for Agricultural Research in Developing Countries: Policy Analysis and Institutional Implications." *Knowledge, Policy and Technology* 13, no. 1 (2001).

²³ See Hagedoorn, J. "Trends and Patterns in Strategic Technology Partnering since the Early Seventies." *Review of Industrial Organization* 11, no. 5 (1996). See also Gibbons, M. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage Publications, 1999.

²⁴ UNDP. *Human Development Report 2001: Making New Technologies Work for Human Development*. Oxford: Oxford University Press, 2001. See also Box, L., and R. Engelhard. *Making North-South Research Networks Work: A Contribution to the Work on A Common Vision for the Future of Science and Technology for Development*. Geneva: UNCTAD, 1999.

One of the most notable trends in development research over the past thirty years has been the move towards more multidisciplinary, interdisciplinary and transdisciplinary research. This evolution is particularly evident in the transformation of IDRC over the course of the 1980s and 1990s from an institution organized along disciplinary lines to multi-disciplinary, problem-based programs. The 2003 IDRC/AUCC report *Research without (Southern) Borders: The Changing Canadian Research Landscape* usefully illustrates the changes recent decades have brought not only to IDRC, but also to the Canadian research community more broadly.²⁵ Much of the literature on North-South development research partnerships notes the importance of creating multi-disciplinary collaborations, but recognizes that many partnerships do not take up this challenge, opting instead for a more traditional, disciplinary approach. Indeed, the challenge of creating and sustaining effective multidisciplinary, interdisciplinary and transdisciplinary North-South research partnerships is an issue that appears to have been under-examined in the literature, and could benefit from further reflection.

The short workshop report *Issues and Challenges for Development and Development Research* issued by the European Association of Development Research and Training Institutes (EADI) addresses the question, "What are the key and emerging development issues that are likely to shape the development research agenda...in 2015 and beyond?"²⁶ The report suggests that research priorities should be determined in the South, and calls for capacity building activities to make this possible. However, the contributors also argue that the "nature" of future development research is a more pressing issue than the actual topics addressed by researchers. The report calls for European research institutes to establish a common agenda in the context of a research network, to better influence policy at the European level.²⁷ This is reflective of the interest in the research agenda-setting process expressed in many articles on North-South partnerships.²⁸

The past three decades have witnessed major changes in assumptions regarding the measurement and evaluation of North-South research partnerships. In particular, it is now widely recognized that co-authorship of peer-reviewed publications is an insufficient measure of the health of a partnership. Katz and Martin, for example, argue that co-authorship is no more than a partial indicator of the occurrence and depth of international research collaboration. They also point out that international and inter-institutional collaboration does not necessarily involve in-depth collaboration between individuals, even when publications include the names of researchers from different countries.²⁹

²⁵ IDRC. *Research without (Southern) Borders: The Changing Canadian Research Landscape*. Ottawa: AUCC, 2003.

²⁶ Similar themes are addressed in the 2001 RAWOO report *North-South Research Partnerships: Issues and Challenges* (The Hague: RAWOO, 2001).

²⁷ Pirani, P. A. *Issues and Challenges for Development and Development Research*. Bonn: EADI, 2006.

²⁸ See for example Jentsch, B. "Making Southern Realities Count: Research Agendas and Design in North-South Collaborations." *International Journal of Social Research Methodology* 7, no. 3 (2004).

²⁹ Katz, J. M., and B. R. Martin. "What is Research Collaboration?" *Research Policy* 26, no. 1 (1997).

However, significant interest persists in the issue of co-authorship. In 1979, Frame and Carpenter examined collaboration among experimental scientists, using data from the 1973 Science Citation Index. They reached three main conclusions: (i) basic fields attracted greater levels of international co-authorship; (ii) larger national scientific enterprises resulted in lower levels of international co-authorship; and (iii) international co-authorships followed clear geographic lines, suggesting that factors such as proximity, language and politics had a major impact on the formation of research partnerships.³⁰ The co-publication issue is also addressed by Koch-Weser and Yankauer, as well as by Keiser *et al*, who offer more direct insights into the issue of North-South co-authorship. Keiser *et al* analyze the representation of authors and editors in leading tropical medicine journals according to their home countries' human development indexes.³¹ Caroline Wagner has also published extensively on the issue of co-authorship, using quantitative analyses of co-authorship patterns to trace the evolution of networks in the field of science and technology.³²

In addition to these practical and political trends, various conceptual or theoretical approaches to development research and North-South partnerships have gained prominence over the course of recent decades. First, innovation theory and innovation systems approaches have gained currency amongst researchers in both the North and South. For example, Hall *et al* argue that while the agricultural research agenda has broadened over the past four decades, agricultural research *systems* have not adapted to meet the changing needs associated with this new research agenda. They suggest that the limitations of the conceptual approaches currently dominant in Southern countries such as India could be mitigated by adopting analytical principles that approach innovation in systemic terms. In particular, Hall *et al* support a "national systems of innovation" approach, which encourages the flow of knowledge between institutional nodes as the key to innovation performance.³³ Velho examines the particular implications of the innovation systems approach for North-South partnerships in the field of science and technology.³⁴

³⁰ Frame, J. D., and M. P. Carpenter. "International Research Collaboration." *Social Studies of Science* 9, no. 4 (1979).

³¹ See Koch-Weser, D., and A. Yankauer. "The Authorship and Fate of International Health Papers Submitted to the American Journal of Public Health in 1989." *American Journal of Public Health* 83, no. 1 (1993). See also Keiser, J., J. Utzinger, M. Tanner, and B. H. Singer. "Representation of Authors and Editors from Countries with Different Human Development Indexes in the Leading Literature on Tropical Medicine: Survey of Current Evidence." *BMJ: British Medical Journal* 328, no. 7450 (2004).

³² Wagner, C., and L. Leydesdorff. "Mapping the Network of Global Science: Comparing International Co-Authorships from 1990 to 2000." *International Journal of Technology and Globalization* 1, no. 2 (2005).

³³ Hall, A. J., N. G. Clark, V. Rasheed Sulaiman, M. V. K. Sivamohan, and B. Yoganand. "New Agendas for Agricultural Research in Developing Countries: Policy Analysis and Institutional Implications." *Knowledge, Policy and Technology* 13, no. 1 (2001).

³⁴ See also Velho, Lea. "North-South Collaboration and Systems of Innovation." *International Journal of Technology Management & Sustainable Development* 1, no. 3 (2002).

Second, the concept of demand-led research has attracted the attention of scholars and donors, particularly in the Netherlands. According to Nair and Menon, demand-led research “refers to activities in which people are able to bring about their own development, with the objective of building up research systems to unleash the potential of the South.” Demand-led research aims to respond to the priorities of Southern communities, and Nair and Menon extol the merits of demand-led research as a means of redressing the imbalances in North-South research partnerships. They argue that “demand-led research can generate knowledge that will empower individuals and enable them to acquire the capabilities necessary to make informed choices of their own, without intellectual inputs from the North. Nevertheless, to create the basic minimum conditions upon which these capacities can be built, North-South collaboration is critical.”³⁵ While Nair and Menon emphasize the facilitating role Northern agencies can play in increasing capacity to carry out demand-led research in the South, they largely overlook the benefits Northern partners gain through nurturing links with Southern research partners. Furthermore, they do not adequately defend the potentially dubious assumption that Southern citizens need Northern input in order to make informed decisions about development research priorities and policies.³⁶

Third, highly influential scholars and policymakers such as Joseph Stiglitz have articulated the notion of knowledge as a “global public good”, and advocated a “knowledge-based approach” to development.³⁷ The prominence of these concepts was reflected by the World Bank’s 1998-1999 World Development Report entitled *Knowledge for Development*.³⁸ In *Development Knowledge, National Research and International Cooperation*, Tilak offers a particularly helpful discussion of the implications of the “knowledge society” and “knowledge-based development” for the South and for aid organizations. Tilak argues that international research cooperation can take various forms, including collaborative research and the funding of research conducted by Southern researchers and organizations. Tilak acknowledges some of the undesirable effects that can be produced by poorly conceived collaborations, including the sidelining of local and long-term research agendas, and the devaluation of domestic research. However, he maintains that while support for Southern research bolsters institutional development and the institutionalization of knowledge for development, collaborative

³⁵ Nair, K. N., and V. Menon. "Capacity Building for Demand-Led Research: Issues and Priorities." *European Centre for Development Policy Management Policy Management Brief 14* (2002).

³⁶ Nair, K. N., and V. Menon. "Capacity Building for Demand-Led Research: Issues and Priorities." *ECDPM Discussion Paper 45* (2002).

³⁷ Stiglitz, J. J. E. "Knowledge as Global Public Good." in *Global Public Goods, International Cooperation in the 21st Century*. Edited by I. Kaul, I. Grunberg and M. Stern. Oxford: Oxford University Press/UNDP, 1999.

³⁸ World Bank. *Knowledge for Development: 1998-1999 World Development Report*. Washington, D.C.: World Bank, 1999.

research is the most critical in terms of producing knowledge as an international public good.³⁹

Typologies of research partnerships

Gingras, Godin and Foisy point out that the literature on research collaboration underestimates the extent of collaboration between researchers around the world. This is largely because co-publication continues to be used as the predominant measurement of research collaboration.⁴⁰ However, the literature also underestimates the diversity of activities carried out under the umbrella of "collaboration". Certain partnership structures are extensively profiled in the literature, such as long-term collaborations on a particular development issue between research teams based at Southern and Northern universities.⁴¹ At the same time, other types of collaboration receive much less attention from evaluators and scholars, such as university chairs on key development issues at Northern institutions that are held by visiting scholars from the South.

Major types (structures) of North-South partnerships relevant to research include:

- (1) Partnerships between individual researchers/research teams (potentially including community members) brought together to carry out a specific project;⁴²
- (2) Capacity-building partnerships (no direct research component) (may be focused on individual or institutional levels, e.g. institutional twinning);
- (3) University chairs;
- (4) North-South research networks (formal and informal)⁴³

Many partnerships are a blend of these major structural types. Beyond differences in the structure of a partnership, partnerships vary in terms of duration, sources of financial

³⁹ Tilak, J. "Knowledge Development and International Aid." in *Development Knowledge, National Research and International Cooperation*. Edited by W. Gmelin, K. King and S. McGrath. Edinburgh: CAS/DSE/NORRAG, 2001.

⁴⁰ Gingras, Y., B. Godin, and M. Foisy. "The Internationalization of University Research in Canada." in *A New World of Knowledge: Canadian Universities and Globalization*. Edited by S. Bond, J. P. Lemasson. Ottawa: IDRC, 1999.

⁴¹ For example, see Cohen, J. "Balancing the Collaboration Equation." *Science* 288 (2000).

⁴² See for example Social Science Research Council. *International Scholarly Collaboration: Lessons from the Past-A Report of the SSRC Inter-Regional Working Group on International Scholarly Collaboration*. New York: SSRC, 2000. See also Schoeters, L. *et al.* "Partnership Working between University Researchers and Self-Advocacy Organizations." *Journal of Intellectual Disabilities* 9, no. 4 (2005), and Biggs, S. D., and G. Smith. "Beyond Methodologies: Coalition-Building for Participatory Technology Development." *World Development* 26, no. 2 (1998).

⁴³ See Box, L., and R. Engelhard. *Making North-South Research Networks Work: A Contribution to the Work on A Common Vision for the Future of Science and Technology for Development*. Geneva: UNCTAD, 1999. See also Goldsmith, A. *Research Networks: Tools for Development*. Ottawa: IDRC Evaluation Unit, 1996.

support, and focus on advocacy and policymaking. Katz and Martin emphasize the variety in the depth of different partnerships: "Collaboration can take various forms ranging from offering general advice and insights to active participation in a specific piece of research. These collaborative contributions can also vary in level from the very substantial to the almost negligible."⁴⁴ In his article, "North-South Partnerships in Development Research: An Institutional Approach", Baud calls for more research on the modalities (processes and structures) of successful partnerships, and the systematic analysis of the outcomes of different types of partnerships.⁴⁵

Indeed, literature that analyzes partnerships according to their type or structure is comparatively scarce. Most of the literature on North-South research cooperation focuses on partnerships between small teams of researchers from the same discipline, working for a limited period of time on a particular set of research questions. However, there are a number of valuable articles on North-South institutional twinning initiatives. For example, Jones and Blunt offer a particularly well-argued study on the efficacy of SIDA's use of "twinning" to promote capacity building at the institutional level. They analyze twinning arrangements between Statistics Sweden and the National Statistical Centre of Laos, and between the Office of the Auditor General of Namibia and the Swedish National Audit Bureau. The study indicates the "the twinning method has potential advantages over other modes of development cooperation, particularly in that it offers enhanced possibilities for organizational learning and sustainable capacity building." However, the study suggests that this potential is often not fully exploited. Rather than having distinctive advantages, developing country partners viewed twinning as a routine process that presents comparable benefits to other approaches to capacity building. Jones and Blunt conclude by suggesting how twinning approaches could be "renovated" and surpassed.⁴⁶

Lansang and Olveda complement Jones and Blunt's contribution through an incisive case study of how the Institute for Tropical Medicine in the Philippines benefited from institutional linkages between the South and North. A contrast of Lansang and Olveda's study with Jones and Blunt's work illustrates how remarkably different results can be achieved through comparable partnership modalities. Lansang and Olveda maintain that institutional linkages "greatly facilitate the process of research strengthening through graduate study programs, technology transfer, 'hands-on' research training in the field, expanded networking with partners' contacts, and continued scientific exchanges in the context of actual research programs." The authors conclude by discussing the strengths and weaknesses of different approaches to institutional development.⁴⁷

⁴⁴ Katz and Martin 1995, 5.

⁴⁵ Baud, I. S. A. "North-South Partnerships in Development Research: An Institutional Approach." *International Journal of Technology Management & Sustainable Development* 1, no. 3 (2002).

⁴⁶ Jones, M. L., and P. Blunt. "Twinning as a Method of Sustainable Institutional Capacity Building." *Public Administration and Development* 19, no. 4 (1999).

⁴⁷ Lansang, M. A., and R. Olveda. "Institutional Linkages: Strategic Bridges for Research Capacity Strengthening." *Acta Tropica* 57 (1994).

NURTURING NORTH-SOUTH RESEARCH PARTNERSHIPS: CHALLENGES AND RESPONSES

Motivations for partnership

Katz and Martin point out that numerous researchers have studied the phenomenon of partnership and identified a range of factors that appear to motivate research collaboration. Although it is rarely possible to conclusively establish researchers' specific reasons for entering into partnerships, Katz and Martin carried out an extensive literature review to identify ten major factors that arguably account for the increase in multiple-authored papers in the experimental sciences. The ten factors include:

- (1) changing patterns or levels of funding;
- (2) researchers' desire to increase their scientific popularity, visibility and recognition;
- (3) escalating demands for the rationalization of scientific manpower;
- (4) the requirements of increasingly complex (and often large-scale) instrumentation;
- (5) increasing specialization in science;
- (6) the advancement of scientific disciplines which means that a researcher requires more and more knowledge in order to make significant advances, a demand which often can only be met by pooling one's knowledge with others;
- (7) the growing professionalization of science (a factor which was probably more important in earlier years than now);
- (8) the need to gain experience or to train apprentice researchers in the most effective way possible;
- (9) the increasing desire to obtain cross-fertilization across disciplines;
- (10) the need to work in close physical proximity with others in order to benefit from their skills and tacit knowledge.⁴⁸

Katz and Martin suggest that their arguments may also provide insight into social science collaborations. However, the ten factors that they have identified do not appear to tell the full story where North-South research partnerships are concerned. Anecdotal evidence suggests that major motivations for researchers involved in North-South

⁴⁸ Katz, J. M., and B. R. Martin. "What is Research Collaboration?" *Research Policy* 26, no. 1 (1997).

partnerships include the desire to contribute to the alleviation of poverty and the need to build up national capacities to carry out research projects and channel the results of research into policymaking processes. The motivation of researchers engaged in North-South partnerships is an issue that merits further examination.

The ethics and politics of partnership

Many authors concerned primarily with the management side of development research partnerships assume that collaboration is *prima facie* positive. Gingras, Godin and Foisy assert that since “no one is against virtue”, concerns about collaborative activities are “confined to pious wishes”. The substantial literature on the ethics and politics of North-South partnerships challenges this assumption and points out where the practice of partnership needs to be improved, or indeed entirely overhauled. To be sure, many of the suggestions raised in this body of literature may not appear practical or feasible from the point of view of donors and managers. Nonetheless, many authors working in this field are making valuable contributions to shaping the future of North-South partnerships.

Structural inequalities: From creating partnerships to managing projects

A primary concern reflected in this collection of literature is the structural inequality so often evident in North-South partnerships, from the creation of partnerships to project management and evaluation. Philosopher Gerry Cohen’s chapter “Equality of what? On Welfare, Goods and Capabilities” effectively frames the debate on equality in North-South research partnerships. Cohen probes the notion of equality itself, demonstrating that the concept of equity is not as straightforward as many commentators on North-South partnerships assume it to be.⁴⁹

Gaillard points to asymmetry between partners as the principal obstacle to productive research collaboration.⁵⁰ This asymmetry manifests itself in the form of inequitable access to information, training, funding, conferences, publishing opportunities, and the disproportionate influence of Northern partners in decision-making on the research agenda, project administration and budget management. Jentsch argues that these inequalities often compromise the success of North-South partnerships, even when the partners identify with similar values in terms of equality and mutual respect.⁵¹ However,

⁴⁹ Cohen, G. A. "Equality of what? on Welfare, Goods and Capabilities." in *The Quality of Life*. Edited by M. Nussbaum, A. Sen. Oxford: Clarendon Press, 1993.

⁵⁰ Gaillard, Jacques F. "North-South Research Partnership: Is Collaboration Possible between Unequal Partners?" *Knowledge and Policy* 7, no. 2 (1994).

⁵¹ Jentsch, Birgit, and Catherine Pilley. "Research Relationships between the South and the North: Cinderella and the Ugly Sisters?" *Social Science & Medicine* 57, no. 10 (2003).

she also maintains that hierarchical research arrangements may be beneficial in some cases, for example when they favour the Southern partner.⁵²

A study carried out by Maina-Ahlberg, Nordberg, and Tomson challenges this popular characterization of the equality problems facing North-South partnerships. This team studied a small number of European health researchers working in partnership with Southern researchers. Through surveys and interviews, the authors determined that most collaborations were initiated from the North, and were monodisciplinary or partly interdisciplinary in nature. In the projects studied, socio-cultural conflicts or misunderstandings and problems regarding authorship and publication were reportedly rare. Maina-Ahlberg, Nordberg and Tomson found that “difficulties related to logistics and finance are easily and freely discussed, while there is little evidence that transdisciplinary research is conducted or even discussed,” indicating that the major challenge lies not in project management, but in devising projects that draw on the insights of different disciplines to address development problems. In their conclusion the authors recommend that publications from collaborative research projects should set out not only project results, but also information on the partnership arrangements, including details on management, finance and ethics.⁵³

Structural inequalities in research partnerships may be compounded by poor project leadership and management. In her article “Recognizing Diversity and Group Processes in International, Collaborative Research Work”, Etorre confronts the “myth that most if not all senior researchers who have national prominence can ‘successfully’ manage international research.” She argues that this myth is rooted in the belief that strong research management is acquired through a trial and error process and does not require specialized skills or training. Etorre argues that “as research becomes more global, high-quality research management is a necessary resource, which demands sensitivity to diversity as well as an awareness of group processes.” Etorre maintains that concern with issues of gender, language and ethnicity should inform not only research findings but also the practice of international research, and attempts to set out benchmarks for sound international research management.⁵⁴ Although Etorre uses a large European research project as her case study, her conclusions also provide valuable insights into North-South research processes.⁵⁵

⁵² Jentsch, B. "Making Southern Realities Count: Research Agendas and Design in North-South Collaborations." *International Journal of Social Research Methodology* 7, no. 3 (2004).

⁵³ Maina-Ahlberg, B., E. Nordberg, and G. Tomson. "North-South Health Research Collaboration: Challenges in Institutional Interaction." *Social Science and Medicine* 44 (1997).

⁵⁴ Heron insightfully discusses the issue of gender in North-South research activities, reflecting on how white, feminist researchers “participate in the perpetuation of racial domination on a global scale”. See Heron, B. "Gender and Exceptionality in North-South Research: Reflecting on Relations." *Journal of Gender Studies* 13, no. 2 (2004).

⁵⁵ Etorre, E. "Recognizing Diversity and Group Processes in International, Collaborative Research Work: A Case Study." *Social Policy and Administration* 34 (2000).

Structural inequalities manifest themselves not only in the execution of collaborative research projects, but also beforehand in the process of selecting partners and setting the research agenda. Scholey argues that in the field of peacebuilding and human security, the research agenda is dominated by Northern policy concerns, rather than the immediate, concrete problems facing communities grappling with armed conflict.⁵⁶ Northern interests disproportionately dominate the agendas in many other fields. For example, Edejer argues that “North-South research collaboration [in health science] is currently plagued by differing interpretations of ethical standards of doing research in developing countries and by inequitable funding, with only 10% of global research funding going to diseases which comprise 90% of the global burden”.⁵⁷ Donors such as DANIDA are explicit about the fact that they expect Danish-funded development research partnerships to support Danish policy-making processes. The report of the Danish Commission on Development-Related Research states that “public funding of research and research institutions is justified and necessary, both in Denmark and in the South,” but that “researchers who receive funding have a responsibility to DANIDA, especially in terms of the agency’s need for specific policy advice.”⁵⁸ While Northern donors may certainly have a legitimate need for research to inform their policies, the prioritization of Northern concerns raises the question of “whose reality counts?” This question has been influentially explored by Chambers, who calls for poor people to have the opportunity to analyze and vocalize their own needs, and examines the “implications for policy and practice of putting first the priorities of the poor.”⁵⁹

These issues are addressed in the publication *Choosing the Right Projects: Designing Selection Processes for North-South Research Partnership Programmes*.⁶⁰ This book builds on the 1998 KFPE publication *Guidelines for Research in Partnership with Developing Countries*, which sets out principles for partnership, as well as practical steps that can be taken to realize these principles.⁶¹ This publication is based on the core belief that partnerships “should be based on mutual interest, trust, understanding, sharing of experiences, and a two-way learning process. In an ideal partnership, all

⁵⁶ Scholey, Pamela. "Peacebuilding Research and North-South Research Partnerships: Perspectives, Opportunities and Challenges." in *A Decade of Human Security: Mapping Governance Innovations and Prospects*. Edited by S. McLean, D. Black and T. Shaw. London: Ashgate, 2006.

⁵⁷ Edejer, T. "North-South Research Partnerships: The Ethics of Carrying Out Research in Developing Countries." *British Medical Journal* 319 (1999).

⁵⁸ DANIDA. *Partnerships at the Leading Edge: A Danish Vision for Knowledge, Research and Development: Report of the Commission on Development-Related Research*. Copenhagen: DANIDA, 2001.

⁵⁹ Chambers, R. "Poverty and Livelihoods: Whose Reality Counts?" *Environment and Urbanization* 7, no. 1 (1995).

⁶⁰ Swiss Commission for Research Partnerships with Developing Countries (KFPE). *Choosing the Right Projects: Designing Selection Processes for North-South Research Partnership Programmes*. Bern: KFPE, 2005.

⁶¹ Swiss Commission for Research Partnership with Developing Countries (KFPE). *Guidelines for Research in Partnership with Developing Countries*. Bern: Swiss Academy of Sciences, 1998.

partners will work together on an equal footing at all stages and levels. This is particularly important during the agenda-setting process, when research projects or programmes are being designed, as well as for implementation and management.” However, several key questions have not been examined in the literature on choosing partners and setting the research agenda. Indeed, while many authors call for greater Southern engagement in setting the collaborative research agenda, the implications of this statement are rarely examined in detail. For example, are there best practices on agenda-setting from the donor community that could be emulated? Why do researchers enter into partnerships that do not accord with their priorities? How do Southern researchers advance their agendas in challenging political and institutional contexts? For example, for political reasons many researchers in places such as Iran, Libya and the Palestinian Territories are excluded from donor-sponsored partnership programs. Are these researchers able to plot alternative routes that enable them to collaborate with colleagues in the North?⁶²

Much of the literature on structural inequalities in North-South research partnerships explicitly or tacitly assumes that the Southern researchers are less experienced than their Northern counterparts, and do not benefit from equally sophisticated contacts and institutional environments. In many cases, this assumption is clearly unfounded. Many Southern countries are home to exceptional research institutions that are well-resourced, well-staffed, well-connected, and politically influential. Researchers from such institutions are able to take the lead in conceptualizing and managing robust North-South research partnerships. This is particularly true given that often times the Northern researchers who become involved in North-South partnerships are relatively junior scholars. In these cases, the Northern researchers benefit not only from their Southern colleagues’ connections and knowledge of the local context, but also from their methodological and theoretical insights. However, the literature on structural inequality in North-South research partnerships underlines that whether the Southern partner is well-established or relatively inexperienced, the frameworks within which international research collaboration takes place still tend to channel the benefits of partnership disproportionately to the Northern side.

In response to this persistent inequality, many authors suggest that collaboration should serve mutual interests, and should benefit both sides equally. However, this ideal is not as straight-forward as it first appears: even when Northern and Southern interests are compatible, they will rarely be identical. Although Northern and Southern governments and researchers clearly have strong mutual interests in truly transboundary issues such as climate change, in most cases of poverty-related research, the “stakes” are simply higher for the Southern side. How the values of mutual interest and equal benefit mesh with the commitment to ensuring that development research responds first and foremost to the priorities of poor communities is a question that merits further careful consideration.

⁶² For further analyses on research priorities and agenda-setting, see the chapters by J. Mouton; P. Dufour; and Gaillard, Kastens and Cetto in Box, L. and R. Engelhard. *Science and Technology Policy for Development: Dialogues at the Interface*. London: Anthem Press, 2006.

Neo-colonialism and globalization

Many scholars and civil society advocates writing on North-South development research partnerships are particularly concerned with the continuing repercussions of colonialism, and the effect of globalization on Southern researchers and communities.⁶³ For example, Crossley analyzes research initiatives conducted through the Belize Primary Education Development Project in Central America, to illustrate how to improve the contribution of research and evaluation to educational development in small states. Crossley's contribution is unique in its focus on small states, and the effect of changing geopolitical relations on the nature and orientation of educational research. He is concerned in particular with the role of research, evaluation and partnerships in "reducing the vulnerability of small states to the influence of powerful international agendas promoted by the processes of globalization."⁶⁴

Focusing on the effect of globalization and neo-colonialism on development research and partnerships, Avilés addresses the extent to which theoretical assumptions shaped by institutional settings affect scientific studies. Using discourse analysis, Avilés examines a descriptive epidemiological study of El Salvador conducted by USAID in 1994. The author argues that the theoretical basis of the study (the epidemiological transition theory) depoliticises development and reflects the ethnocentrism of the "colonizer's model of the world."⁶⁵ Similar concerns are shared by Appadurai and Stavenhagen, as well as Apfel-Marglin and Marglin.⁶⁶

Several health researchers have raised particularly pointed arguments regarding colonialist mentalities in research partnerships. In "Moving to Research Partnerships in Developing Countries", Costello and Zumla make four key points. First, they argue that many medical research projects in the developing world are still "semi-colonial in nature and may have negative effects on partner countries." Second, they recommend the phasing-out of "annexed site", expatriate-led research projects in favour of a partnership model in which research projects are led by national teams with foreigners providing only technical support. Third, Costello and Zumla suggest that funding research through

⁶³ See for example Impact-International. "Controlling Academia: US 'Aid' as Neo-Colonialism." <http://www.africa2000.com/IMPACT/educate.html>. See also Krishna, V. V. "Science, Technology and Counter-Hegemony: Some Reflections on the Contemporary Science Movements in India." in *Science and Technology in a Developing World*. Edited by Shinn et al. Dordrecht: Kluwer Academic Publishers, 1997.

⁶⁴ Crossley, M. "Cross-Cultural Issues, Small States and Research: Capacity Building in Belize." *International Journal of Educational Development* 21, no. 3 (2001).

⁶⁵ Avilés, L. A. "Epidemiology as Discourse: The Politics of Development Institutions in the Epidemiological Profile of El Salvador." *Journal of Epidemiology and Community Health* 55 (2001).

⁶⁶ See Appadurai, A. "Grassroots Globalization and the Research Imagination." *Public Culture* 12 (2000). See also Apfel-Marglin, F., and S. A. Marglin, eds. *Decolonizing Knowledge from Development to Dialogue*. Oxford: Clarendon Press, 1996 and Stavenhagen, R. "Decolonising Applied Social Sciences." in *Social Research: Philosophy, Politics and Practice*. Edited by M. Hammersley. London, New Delhi: Sage, 1993.

national academics and institutions increases the likelihood of translating findings into policy and practice. Lastly, the authors underscore the need for funding agencies to monitor the implementation of equitable partnership principles.⁶⁷

A 1996 *Lancet* editorial takes a similar, but bolder tone. The editor argues that replacing the “old-fashioned paternalism” exemplified by colonial-era tropical medicine programs with North-South collaboration “sounds worthy.” However, the impetus for such partnerships is likely to come from the west, and will result in the continued perception of health care needs through western eyes. Efforts to improve the health of Southern populations “must avoid the deceits of politicians and businesspeople who, under the guise of collaboration, have foisted on such countries inappropriate technologies and obstructive political and financial structures.” The editor points to the poor record of collaborative training exercises, which end up training Southern doctors to treat patients who can already afford western medical care, rather than those most in need. The editor argues that tropical medicine institutes should be relocated to the South. This would save money on facilities and travel; enable researchers to observe health-care problems directly; and encourage more Southern medical professionals to take part in research, resulting in a “more equitable intellectual balance between the west and the tropics.”⁶⁸

A few authors address the issue of guidelines that aim to inform international research, and particularly North-South research partnerships. In “The Ugly Scholar: Neocolonialism and Ethical Issues in International Research”, Rakowski argues that social science ethical guidelines often fail to address the difficulties sociologists encounter when carrying out international research. This shortcoming “potentially endangers research and researcher alike.”⁶⁹ Reflecting on the ethics of carrying out research in developing countries, Edeger posits three guideposts to resolve ethical dilemmas and unfair research funding practices: “Think action. Think local. Think long term.” In his reply to Edeger, Wilson highlights two key documents to guide researchers working with Southern communities, namely the Declaration of Helsinki and the guidelines developed by the Council for International Organizations of Medical Sciences. The second document prohibits research involving subjects in impoverished communities unless the research is responsive to their community priorities and health needs. This underscores the need to for community participation, and for advocates and watchdogs in the research process.⁷⁰

⁶⁷ Costello, A., and A. Zumla. "Moving to Research Partnerships in Developing Countries." *British Medical Journal* 321 (2000).

⁶⁸ Editorial-Lancet. "Will Tropical Medicine Move to the Tropics?" *Lancet* 347 (1996).

⁶⁹ Rakowski, A. R. "The Ugly Scholar: Neocolonialism and Ethical Issues in International Research." *American Sociologist* 24 (1993).

⁷⁰ Edeger 1999.

National and institutional approaches to supporting North-South research partnerships

An excerpt from a SciDevNet policy brief on international scientific collaboration provides a helpful starting point for examining the variety of approaches to research partnerships adopted by Northern and Southern governments and institutions:

Most developing country governments recognize that science and technology can bring economic and social benefits to their country. But the value of encouraging collaboration between their own scientists and technologists and those of other countries is less obvious to them. Within this context, there is growing awareness that the return on investment in science and technology in developing countries can be significantly increased if part of that investment is used to promote collaboration with researchers in other countries. As a result of this realization, the form that collaboration in science and technology should take, the conditions under which it is likely to succeed, the risks that collaborative projects can face—especially when collaboration takes place between partners of unequal scientific strength—and the potential barriers that can stand in their way, have each become major topics within the research and development policies of both developed and developing countries.⁷¹

It is not possible here to examine the intricacies of the many national and institutional approaches to North-South research partnerships. Instead, I will highlight the fairly substantial literature on the approaches favoured by IDRC and Canadian universities, as well as by the Dutch government. A key area for further research and analysis is the approaches to partnership adopted by Southern institutions and governments. To date, these approaches do not appear to be as well represented in the literature as the policies and practices of Northern states.⁷² However, there is a growing amount of work being done on India's approach in particular. The research conducted by Hall and Sivamohan on agricultural research and partnerships in India is exemplary of this trend. Johann Mouton has also set out an insightful account of the connections between South Africa's national science and technology strategy and the country's continuing efforts to transform itself in the aftermath of the apartheid regime.⁷³

⁷¹ Oldham, G. "International Scientific Collaboration: A Quick Guide." SciDevNet. <https://www.scidev.net/dossiers/index> (accessed September 17, 2006).

⁷² Lea Velho provides an introductory discussion of collaboration trends within Latin America and the Caribbean (LAC), and between LAC countries and Northern states. She notes that while collaboration rates have not increased between LAC countries and Northern states, rates of intra-LAC research cooperation have increased notably in recent years. See Velho, L. "Research for Development in the South: Regional Report for Latin America and the Caribbean-Background Paper Commissioned by IDRC in Preparation for its Corporate Strategy and Program Framework 2005-2010". Ottawa: IDRC, 2003.

⁷³ Mouton, J. "Science for transformation: Research agendas and priorities in South Africa" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

In terms of the Canadian approach to North-South research partnerships, IDRC has taken the lead in supporting partnerships and reflecting on Canada's experiences with collaboration. Anne Bernard's piece "North-South Collaboration: A Canadian Perspective" provides valuable insight into Canada and IDRC's early experiences with North-South partnerships. Bernard's chapter addresses many of the themes that continue to occupy authors concerned with collaborative research today. For example, she argues that "to be genuinely cooperative, it is essential that the research questions...posed address equally the theoretical and applied interests of both partners and that both sites recognize the potential relevance of the findings to their respective national settings and to theory building in those settings."⁷⁴

The *Evaluation of Cooperative Projects Supported by IDRC* provides a detailed account of IDRC's efforts to support North-South collaboration throughout the 1980s and early 1990s. This wide-ranging report considered the nature of partnerships between Canadian and Southern researchers and institutions; the impact of partnerships on capacity building; the utilization of research results; and the influence of the projects on subsequent research initiatives. Its general conclusion is that "from the perspective of the participants, cooperative research projects involving Canadian scientists and their peers in the South produced useful results, strengthen[ed] research capacity in Third World institutions, and raised the level of understanding of development issues among Canadian scientists".⁷⁵ More contemporary perspectives on Canadian experiences in North-South research partnerships are presented in the IDRC-AUCC reports *Research without (Southern) Borders: The Changing Canadian Research Landscape* and *Highlighting the Impacts of North-South Research Collaboration among Canadian and Southern Higher Education Partners*. The first report makes the interesting suggestion that "research diplomacy" should be developed as a dimension of Canada's foreign policy.

Armstrong and Whyte's review of IDRC's Secretariats addresses many of the challenges associated with institutional cooperation, both between Northern donors and between Northern and Southern institutions. Armstrong and White suggest that in establishing research Secretariats, IDRC was part of a broad process of experimentation in the Canadian public sector regarding alternative forms of service delivery. This review argues that "perhaps the two most important defining tendencies of this movement [were] semi-autonomous agencies and collaborative partnerships." The study offers a detailed history and typology of the research Secretariats established by IDRC, illustrating the diversity of applications of this partnership mechanism.

⁷⁴ Bernard, A. "North-South Collaboration: A Canadian Perspective." in *North-South Scholarly Exchange: Access, Equity and Collaboration*. Edited by G. Shive, S. Gopinathan and W. Cummings. New York: Mansell Publishing Ltd, 1988.

⁷⁵ Zollinger, M. *An Evaluation of Cooperative Projects Supported by the International Development Research Centre*. Ottawa: IDRC, 1995.

Canadian universities have been particularly active in fostering North-South partnerships through initiatives such as the CIDA-funded University Partnerships in Cooperation and Development (UPCD) program. UPCD has been examined by various authors, such as Béland. In "Canadian North-South Collaboration through the UPCD Lens", Béland positions the UPCD program within the evolving Canadian policy context, and looks at how the UPCD program has enabled Canadian higher education institutions to work together with their Southern counterparts. The goal of the UPCD program, Béland explains, is "to increase the capacity of developing country education and training organizations to address their country's sustainable development priorities." The paper concludes with four recommendations for making knowledge partnerships a building block of Canada's approach to development: (i) explicitly recognize the importance of strengthening Southern higher education and research institutions in Canada's international policy; (ii) CIDA and AUCC should develop a strategy for the "transfer of cutting-edge knowledge" in each of Canada's ODA priorities; (iii) increase funding for UPCD; and (iv) prioritize strengthening Africa's knowledge infrastructure.⁷⁶

In a particularly insightful contribution, Caron and Tousignant analyze the contemporary and emerging characteristics of Canadian universities' approach to international cooperation. They argue that in the Canadian university context, the approach to collaboration is characterized by (i) a wide variety of international activities; (ii) growing levels of institutionalized international cooperation; and (iii) increasingly structured international research and education activities. Globalization and the end of the Cold War transformed countries and regions of previously marginal importance to Canadian universities into valuable new areas for partnership. Caron and Tousignant suggest this is the case in several countries in Central Europe, Africa (e.g. Rwanda), Haiti, Chile, Mexico and Asian states such as Vietnam. Caron and Tousignant reflect that cooperation activities in agriculture, education, health, forestry and hydrology are still very important, but they have been joined by more recent activities concerned with the environment, community development and the advancement of women. In recent years, there have also been growing demands for more massive university intervention in the areas of democratic development, governance, human-rights training, civil law and justice, dispute resolution and training for the public service. A whole new chapter is opening for international university cooperation." Caron and Tousignant anticipate that in the future, more research partnerships involving Canadian universities will take place within the context of bilateral and multilateral agreements, often with the involvement of the private sector and higher education associations.⁷⁷

⁷⁶ Béland, M. "Canadian North-South Collaboration through the UPCD Lens." Nuffic Expert Meeting, 24-25 May 2005. See also Beaulieu, D. *The Contribution of Research to the University Partnerships in Cooperation and Development Tier 2 Program 2004*. Ottawa: AUCC, 2004, and Groupe de Recherche en Administration Publique, Université de Sherbrooke. *University Partnerships in Cooperation and Development: Analysis of Results*. Ottawa: AUCC, 2004.

⁷⁷ Caron, F., and J. Tousignant. "New Forms of International Cooperation." in *A New World of Knowledge: Canadian Universities and Globalization*. Edited by S. Bond, J. P. Lemasson. Ottawa: IDRC, 1999.

Like IDRC, Rawoo and other Dutch institutions have supported numerable North-South partnerships, and reflected quite extensively on their experiences.⁷⁸ Louk Box provides a concise history of Dutch support for North-South research partnerships, and many authors have produced case studies of partnership programmes carried out with financial support from the Dutch government.⁷⁹ For example, Wolffers, Adjei, and Van Der Drift review the first phase of a Dutch health research partnership developed with Ghana, Mozambique and Benin, within the “demand-driven research” framework, which has—rhetorically at least—considerably influenced the Dutch approach to development research partnerships.⁸⁰ Patel examines the 17-year history of the Indo-Dutch Programme for Alternatives in Development (IDPAD), “one of the most important and successful international research collaborations in Indian social sciences,” and identifies lessons for future partnerships. IDPAD carries out a wide range of collaborative activities, including research projects, grant distribution, scholarly exchanges, publications and networking. The author discusses various important features of the partnership which, he argues, neutralized the inequalities inherent in North-South partnerships. For instance, he applauds the Dutch government’s willingness, through IDPAD, to distribute money for North-South research partnerships through the Indian research councils. This increased Indian researchers’ confidence in the fairness of the program, and opened partnership opportunities up to a wider range of researchers. Indeed, Patel stresses the fact that IDPAD was guided by academics rather than bureaucrats, and maintains that this was an essential factor in the program’s success.⁸¹

Beyond Canadian and Dutch institutions’ fairly well-chronicled approaches to supporting research cooperation, there are some significant studies on the Nordic countries’ focus on North-South research partnerships in the field of higher education.⁸² For example,

⁷⁸ See for example RAWOO. *Framework for a Philippine-Dutch Programme of Biodiversity Research for Development*. The Hague: RAWOO, 1998, and RAWOO. *Framework for a Ghanaian-Dutch Programme of Health Research for Development*. The Hague: RAWOO, 1998. See also RAWOO. *Balancing Ownership and Partnership in Development Research: Review of 1999 and 2000*. The Hague: RAWOO, 2001. Van de Sande also provides an insightful discussion of the evolution of Dutch support for development research. See Van de Sande, T. "Priority Setting in Research for Development: A Donor's Perspective" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

⁷⁹ Box 2001. See also Royal Netherlands Academy of Arts and Sciences. *North-South Research Cooperation*. Amsterdam: Royal Netherlands Academy of Arts and Sciences, 2002.

⁸⁰ Wolffers, I., S. Adjei, and Van Der Drift, R. "Health Research in the Tropics." *Lancet* 351 (1998).

⁸¹ Patel, S. "International Collaboration in Social Science Research: Lessons from IDPAD." *Economic and Political Weekly* 37, no. 3 (2001).

⁸² See NORRAG. "Knowledge Generation in High Education: New Challenges for North-South International Collaboration." *NORRAG News* (1998), and Simonsen, J. G., J. P. Myklebust, and H. Karlsen. "North-South Cooperation in Higher Education and Research: Nordic Goals, Strategies, Issues and Experiences- Proceedings from the NUAS-NUS Conference." Bergen, University of Bergen and the Nordic Association of University Administrators (NUAS), 15-16 April 1999. See also Sverdrup, K. "Surveys of the Research Sector in Partner Countries as a Basis for Norwegian Support for Higher Education and Research." in *Enhancing Research Capacity in Developing and Transition Countries*. Edited by KFPE. Bern: KFPE, 2001.

with a three-year budget of approximately CAD 62 million, the Norwegian Programme for Development, Research and Higher Education (NUFU) supports North-South research projects in the field of education, as well as in a number of other sectors.⁸³

The European Union (EU) is taking on an increasingly important role as a supporter of development research partnerships. This is evident in reports such as *Beyond the Partnership Rhetoric*, which reflects on a European Centre for Development Policy Management (ECDPM) program designed to promote partnerships between European researchers and research and policy institutions in the African, Caribbean and Pacific (ACP) region. Hauck and Land provide an initial stocktaking of lessons from the first years of the program, and debate the extent to which partnership promotes capacity development.⁸⁴ Georghiou's research provides an interesting point of comparison for analysing the EU's approach to North-South research partnerships. Georghiou examines the evolving frameworks for collaboration in technological research within Europe, and provides a clear analysis of key European research cooperation efforts, including the EU's Framework Programme, the EUREKA initiative and COST (European Co-operation in the field of Scientific and Technical Research). While these separate programs were once rational and effective, Georghiou argues that they are now unsustainable and makes a case for a new, integrated framework that combines the strength of the three schemes to advance European research cooperation.⁸⁵ Georghiou examines how increasing rates of research cooperation between different regions of the industrialized world is manifested in co-publication; increasing focus on single global facilities in "big science"; and the development of global cooperative programmes. Georghiou explores Europe's motivations for cooperation, contrasting direct research benefits with indirect economic, strategic and political benefits. He also identifies key barriers to North-North cooperation, including competitiveness issues and institutional mismatches, and argues that formal partnership arrangements are starting to catch up with the proliferation of "bottom-up" global collaboration.⁸⁶

Sectoral experiences and approaches to partnership

Sizable proportions of the literature on North-South partnerships focus on health, agricultural and science and technology research. Indeed, the attention devoted to partnerships in other fields is negligible in comparison to the interest generated by these

⁸³ See <http://siu.no/vev.nsf/O/NUFU-About+NUFU>. See also University of Oslo. "The 20th Anniversary Seminar: University of Oslo Committee for North-South Cooperation." University of Oslo. http://www.uio.no/om_uio/internasjonalt/nord-sor/jubileum/index.html (accessed October 2, 2006).

⁸⁴ Hauck, V., and T. Land. *Beyond the Partnership Rhetoric: Reviewing Experiences and Policy Considerations for Implementing 'Genuine' Partnerships in North-South Cooperation*. Maastricht: European Centre for Development Policy Management, 2000. See also Bijker, W., C. Leonard, and Gerwackers. *Research and Technology for Development (RTD), through EU-ACP Policy Dialogue: Scientific Background Methodology and Toolbox*. Maastricht: University of Maastricht, 2001.

⁸⁵ Georghiou, L. "Evolving Frameworks for European Collaboration in Research and Technology." *Research Policy* 30, no. 6 (2001).

⁸⁶ Georghiou, L. "Global Cooperation in Research." *Research Policy* 27 (1998).

three sectors. By way of illustration, this literature review identified approximately 150 publications on North-South research partnerships. 30 of these publications (20%) focused on health research. Partnerships in the field of science and technology appear to be garnering increased interest in the literature. The literature does not appear to question why some fields of research are better represented than others, or to identify what lessons may be shared between fields. A preliminary survey of the literature suggests that a comparative study of the lessons learned through partnerships in different sectors could be particularly helpful. The literature examined for this review indicates that health research partnerships have yielded many insights about the ethics of partnership, while collaborations in the fields of agriculture and science and technology have resulted in valuable lessons about working with the private sector.⁸⁷ Researchers involved in science and technology partnerships may also have insights about the value of attempting to strengthen collaboration patterns by working with the UN system.⁸⁸

In the field of agricultural research, there is a substantial body of literature on the experiences of the Consultative Group on International Agricultural Research (CGIAR). This literature not only illuminates the particular challenges facing agricultural research partnerships, but also highlights the unique experiences of the CGIAR system. Established in 1971, the CGIAR is a “strategic alliance” of states, regional and international organizations, and foundations supporting fifteen research centres around the world that carry out studies in the fields of agriculture, forestry, fisheries and the environment. 13 of the research centres are located in the developing world. The centres work alongside NGOs, private companies and national agricultural research organizations to carry out research that promotes food security and poverty reduction in the South. In total, there are more than 8,500 CGIAR staff and scientists working in more than 100 countries. The CGIAR is committed to the creation of global public goods, and in 2005, CGIAR members contributed an estimated US \$450 million to the partnership, the “single-largest public goods investment in mobilizing science for the benefit of poor farming communities worldwide.”⁸⁹ The CGIAR system is particularly interesting as Southern and Northern countries both participate as donors.

The insights arising from the CGIAR experience were documented in a 2003 meta-evaluation of the CGIAR completed by the World Bank’s Independent Evaluation

⁸⁷ For example, see Sivamohan, M. V. K., and A. Hall. *Emerging Patterns and Partnerships of Private Sector and Public Science Activity for Horticulture Development in India: Reflections from some Case Studies*. Chatham: National Resources Institute, 1998. See also Hall, A. J., M. V. K. Sivamohan, N. Clark, S. Taylor, and G. Bockett. "Institutional Developments in Indian Agricultural R&D Systems: The Emerging Patterns of Public and Private Sector Activity." *Science, Technology and Development* 16, no. 3 (1998).

⁸⁸ See for example Box, L., and R. Engelhard. *Making North-South Research Networks Work: A Contribution to the Work on A Common Vision for the Future of Science and Technology for Development*. Geneva: UNCTAD, 1999.

⁸⁹ See <http://www.cgiar.org/who/index.html>.

Group.⁹⁰ The publications in the CGIAR Secretariat's "Partnership Series" examine, on a case-by-case basis, the involvement of Northern and Southern countries in the CGIAR. The involvement of regional and international organizations is also examined.⁹¹ Authors such as Leung *et al*, and Mervis and Normile discuss the experiences of individual CGIAR research centres, such as the International Rice Research Institute.⁹² Notably, the CGIAR has attracted significant criticism from a number of authors concerned about the CGIAR's research agenda and the equality of the research partnerships supported by the group.⁹³

Higginbotham underlines the difficulties of creating multidisciplinary North-South research partnerships, despite the growing interest in multidisciplinary research for development. He examines the International Clinical Epidemiology Network's (INCLIN) efforts to integrate a social science component into its work in the developing world, and describes INCLIN's approach to strengthening partnerships between social scientists and clinical epidemiologists. Higginbotham also discusses the challenges involved in this process. These challenges include recruiting and training social scientists to work in the health sector. He concludes by highlighting the need for international partnerships to bolster infrastructure for professional growth and career sustainability in health social science.⁹⁴

Authors working in the field of peacebuilding have helpfully highlighted some of the challenges faced by researchers, particularly those working in the context of North-South partnerships. Nhema, for example, highlights six challenges facing those engaged in research on peace, security and development. These challenges include: (i) ensuring research is comprehensive, anchored in local realities, and not unduly constrained by disciplinary boundaries; (ii) embracing opportunities to work collaboratively in diverse, multi-disciplinary teams drawn from institutions with shared visions; (iii) rooting peacebuilding research in a deep understanding of the causes of conflict in different contexts; (iv) meeting the growing need for networking, coordination and collaboration between researchers at local, national and international levels; (v) ensuring peacebuilding research is relevant to the local people who are supposed to utilize it; and (vi) disseminating the results of peacebuilding research activities nationally and internationally.⁹⁵

⁹⁰ See World Bank, *The CGIAR at 31: An Independent Meta-Evaluation of the Consultative Group on International Agricultural Research*. Washington, D.C.: World Bank, 2003.

⁹¹ See <http://www.cgiar.org/publications/secretariat.html>.

⁹² See Leung, H., G. P. Hettel, and R. P. Cantrell. "International Rice Research Institute: Roles and challenges as we enter the genomics era." *Trends in Plant Science* 7, no. 3 (2002). See also Mervis, J. and D. Normile. "Lopsided partnerships give way to real collaboration." *Science* 279, no. 5356 (1998).

⁹³ See for example Ecologist. "CGIAR: Agricultural research for whom?" *Ecologist* 26, no. 6 (1996).

⁹⁴ Higginbotham, N. "Developing Partnerships for Health and Social Science Research." *Social Science and Medicine* 35 (1992).

⁹⁵ Nhema, A. "Prospects for Peacebuilding in Africa through Peace, Security and Development Research." http://insecurityforum.org/alfred_nhema/174 (accessed August 22, 2006).

To be sure, many of the challenges Nhema identifies are also faced by researchers working in other fields. Drawing on the experience of IDRC's Peace, Conflict and Development program, Scholey insightfully reflects on the challenges to establishing fruitful collaborations in the field of peacebuilding research. Scholey discusses problems that are unique to the peacebuilding field, as well as persistent challenges faced by researchers collaborating in a variety of disciplines. These challenges include defining the research agenda; methodological hurdles; the disconnect between policy formulation and research; the incompatibility of research and policy timelines; dismissive attitudes towards policy-relevant research within the Northern academic establishment; the underdevelopment of Southern research institutions; unstable field research environments; divided research, advocacy and policy communities; and the domination of the research agenda by Northern policy concerns rather than projects designed to address immediate, concrete problems in communities grappling with armed conflict. Scholey observes that only a small proportion of peacebuilding research is the result of North-South partnerships. This has left peacebuilding research underdeveloped in critical ways, given that the majority of conflicts occur in the South, while most peacebuilding policies are set by Northern powers. In response to this problem, Scholey sketches a new model of collaborative research relationships. Key points include equally involving Northern and Southern researchers in ground-level research and analysis; innovatively resourcing and rewarding joint peacebuilding research; and developing an "ethos of solidarity" between Northern and Southern counterparts.⁹⁶

Research collaboration and capacity building

Capacity building opportunities for Northern and Southern researchers and institutions are an essential aspect of many if not most partnerships. Capacity building is a crosscutting theme in much of the literature discussed above. Historically, the assumption was that Southern researchers have the most to gain from North-South partnerships. However, Ogden and Porter make the salient observation that in many cases the nature of North-South research is changing, owing to the growing capacity of researchers in countries such as Brazil, India and China to carry out high-quality, advanced, independent studies in a range of fields.⁹⁷ Indeed, the Terms of Reference for the Danish Commission on Development-Related Research admit that "the development of indigenous research capacity in developing countries, in itself much to be welcomed, [poses] new challenges for the Danish development research sector."

Several authors suggest that it is often the Northern researchers whose capacity is enhanced the most significantly through partnership exercises, as they learn from their Southern colleagues how to navigate different cultural contexts, and how to adapt

⁹⁶ Scholey 2006.

⁹⁷ Ogden, J., and J. Porter. "The Politics of Partnership in Tropical Health: Researching Tuberculosis Control in India." *Social Policy and Administration* 34 (2000).

research methodologies to suit unstable conditions in the field.⁹⁸ Research partnerships may also nurture respect for Southern-designed development trajectories, and increase recognition in the North of how Northern policies can cripple Southern development efforts. As a Canadian research partner reflected, “We see one of the key values in collaborative projects to be in the evolution of international development relations away from “fixing” the South—which we have not been very good at if Africa is any measure—to building capacity in the South to fix itself and to build capacity in the North to allow that to happen.”⁹⁹

Several observers suggest that successful capacity building should enhance researchers’ ability to define a relevant, needs-based research agenda and stick to it.¹⁰⁰ Jentsch points out that in North-South partnerships, there is a capacity building agenda, just as there is a research agenda. She argues that when partnerships are instigated, the capacities and weaknesses of each collaborator should be made explicit; and that capacity building exercises should not be limited simply by Northern interests.¹⁰¹ The exhaustive KFPE publication *Enhancing Research Capacity in Developing and Transition Countries* includes overviews of donor approaches to partnership and capacity building (Denmark, UK, Netherlands, Sweden, Norway, Germany, Switzerland), as well as case studies of partnerships between European and Africa, Asian and Latin American institutions.

The literature on North-South partnerships tends to focus more on the institutional capacity building opportunities resulting from research partnerships, rather than individual capacity building. For example, Nwamuo focuses on capacity building in the African university sector through North-South partnerships, underlining the need for local “buy-in” as a primary condition for effective capacity building. Other conditions include clear mutual understanding of the partnership criteria; mutual commitment and trust; respect for cultural norms and values; an open and transparent approach to policy formulation, funding and implementation; and readiness to build long-term relationships. Nwamuo also makes a number of recommendations for the design and realization of equitable capacity-building partnerships. These include: carrying out needs assessments prior to the start of a partnership; establishing staff development and teacher exchange programs; supporting income generating projects in African universities; encouraging the generation of ICT “content” in African universities; and ensuring that donor funding is distributed equitably across Africa, rather than

⁹⁸ See for example Scholey 2006.

⁹⁹ Bernard, A. "North-South Collaboration: A Canadian Perspective." in *North-South Scholarly Exchange: Access, Equity and Collaboration*. Edited by G. Shive, S. Gopinathan and W. Cummings. New York: Mansell Publishing Ltd, 1988.

¹⁰⁰ See for example Nair and Menon 2002 and Crossley, M. and K. Holmes. "Challenges for Educational Research: International Development, Partnerships and Capacity Building in Small States." *Oxford Review of Education* 27, no. 3 (2001): 395-409. See also Hopper, D. 'Research Policy: Eleven Issues', Statement to the Board of Governors of the International Development Research Centre, Bogota, 19 March 1973.

¹⁰¹ Jentsch 2004.

concentrated in a handful of well-established universities.¹⁰² Béland and Beaulieu's reflections on Canada's University Partnerships in Cooperation and Development (UPCD) program also provide insight into how partnerships between Canadian and African universities can support institutional capacity building. (See the above section on "National and institutional approaches to supporting North-South research partnerships".)

Authors such as Mbabazi, MacLean and Shaw stress the growing importance of non-state actors, particularly think tanks, in identifying and responding to governance and human security challenges in Africa through policy-oriented research.¹⁰³ The implication of their work is that it is essential to ensure that the capacity-building opportunities associated with North-South research partnerships include not only universities and established research institutes, but also NGOs. However, this does not appear to be an issue that has been addressed in the literature on North-South partnerships. (Notably, in some contexts in recent years, Southern think tanks have been gaining increased donor support and partnership opportunities, at the expense of universities.)

Utilization and impact of collaborative research

Louk Box's inaugural lecture as Professor of International Cooperation at Maastricht University provides a helpful, detailed background for a discussion on the utilization and impacts of collaborative research. Box questions and refutes three key assumptions that often stymie the effectiveness of North-South research partnerships on science and technology. The first assumption (the "transfer assumption") is that poor countries cannot produce knowledge themselves, and therefore need the transfer of knowledge and technology from the North. The second assumption (the "professional knowledge assumption") is that the South needs to rely on professional, objective knowledge rather than traditional knowledge. The third assumption (the "empirical basis assumption") is that empirical research currently provides the basis for policymaking on international cooperation. (In fact, Box argues, in many cases international cooperation policy itself is not based on empirical research, given the disjunction between knowledge-producing systems and policy-making processes.) Moving past these assumptions is essential in order for North-South partnerships to yield beneficial results.

In a similar vein, the Swiss Commission for Research Partnerships with Developing Countries (KFPE) report *Improving Impacts of Research Partnerships* observes that "North-South research partnerships are considered a powerful tool for contributing both to knowledge generation and capacity building in the South, as well as in the North. However, it appears that little is known about the impact of research partnerships." The aims of this KFPE study are to: "(i) provide insights into how to achieve desired impacts and avoid drawbacks; (ii) stimulate discussion of impacts; and (iii) achieve better

¹⁰² Nwamuo, C. "Capacity-Building through North-South Partnership in the African University Sector." *Capacity.Org* 6 (2000). See also Jones and Blunt 1999 and Lansang 1994.

¹⁰³ Mbabazi, P., S. J. MacLean, and T. M. Shaw. "Governance for Reconstruction in Africa: Challenges for Policy Communities and Coalitions." *Global Networks* 2, no. 1 (2002).

understanding of the functioning of research partnerships. Ultimately, the study aims to help improve the design and implementation of funding schemes that support research partnerships.” The report stresses the value of integrating impact planning, monitoring and assessment components into research partnerships from the outset.¹⁰⁴

IDRC and the Association of Universities and Colleges of Canada (AUCC) have also examined the impacts of collaborative development research. The publication *Highlighting the Impacts of North-South Research Collaboration among Canadian and Southern Higher Education Partners* addresses four main themes: (i) the impacts of collaborative research on policy; (ii) the impact of collaborative research on development challenges; (iii) the impact of collaborative research on capacity building; and (iv) the impact of collaborative research on individual researchers and research teams. This collection is certainly one of the most exhaustive discussions available of the impacts of collaborative research.

In addition to KFPE, IDRC and AUCC, Rawoo has dedicated considerable attention to the utilization of the results of collaborative research projects, and determining the impacts of partnerships.¹⁰⁵ In addition to Rawoo’s work, DGIS sponsored an in-depth comparative study of the impacts of donor-initiated programmes on research capacity in the South.¹⁰⁶

As with development research more broadly, it is difficult to evaluate the precise impacts of North-South research partnerships. It appears, however, that notions of impact and effectiveness are broadening. Edejer, for example, argues that “scientific advances are not the only yardstick to measure the success of North-South research collaboration: the choice of identified priorities as areas of work, the sustainability of the studied interventions outside the research setting, and the investment in local research capacity are becoming equally important as indicators of success.”

While not explicitly focused on development research, Currie *et al* discuss partnerships in health and social services research, and present a “comprehensive, dynamic model of community impacts of research partnerships” in these fields. The model identifies three major areas of mid-term impact: (i) enhanced knowledge; (ii) enhanced research skills; and (iii) use of information. These three areas correspond to the principal functions of research collaboration Currie *et al* identify from the literature: knowledge generation; research education and training; and knowledge sharing. The purpose of the model is to

¹⁰⁴ Swiss Commission for Research Partnerships with Developing Countries (KFPE). *Choosing the Right Projects: Designing Selection Processes for North-South Research Partnership Programmes*. Bern: KFPE, 2005.

¹⁰⁵ See Utilization of Research for Development Co-Operation: Linking Knowledge Production to Development Policy and Practice. The Hague: RAWOO, 2001. See also RAWOO. Mobilizing Knowledge for Post-Conflict Management and Development at the Local Level. The Hague: RAWOO, 2000.

¹⁰⁶ Bautista, M. C. R. B., L. Velho, and D. Kaplan. *Comparative Study of the Impacts of Donor-Initiated Programmes on Research Capacity in the South*. The Hague: DGIS, Division for Research and Communication, 2001.

help research partners, intended recipients, and funders to understand and evaluate the practical impacts of community-university research partnerships. The model also addresses issues of project management, accountability and evaluation.¹⁰⁷ An unfortunate shortcoming of many of the articles and reports on the impacts of North-South development research partnerships is that they fail to engage with the question of how the fact that the research was produced cooperatively affects its reception by policymakers and community members. This could be a fruitful area for future enquiry.

¹⁰⁷ Currie, M., *et al.* "A Model of Impacts of Research Partnerships in Health and Social Services." *Evaluation & Program Planning* 28, no. 4.

CONCLUSION

This review demonstrates that there is a plentiful body of literature of North-South research partnerships, which testifies to the central role that research cooperation continues to play in generating knowledge in support of development and poverty reduction. This literature reflects some of the major trends and debates surrounding contemporary North-South research collaboration. Principal debates include effective donor approaches to supporting North-South partnerships; how to measure the success and impact of partnerships; and the evolving role of Southern research leaders, such as Brazil, South Africa, India and China. Much of the literature on North-South research cooperation is highly critical, underlining the persistent political, economic and cultural obstacles to creating mutually beneficial partnerships, and the tensions inherent in this goal.

While the literature on North-South partnerships is evidently more abundant than is often assumed, it is clear that the majority of the literature on North-South research partnerships is produced by Northern scholars and institutions. More in-depth Southern reflections on the questions and challenges surrounding partnerships would be an invaluable complement to the current literature. Issues that would benefit from further research include:

- Inter-disciplinary dialogue on experiences with North-South research partnerships;
- The role of emerging/under-examined actors (e.g. think tanks), and the inter-play between the diverse actors involved in North-South research partnerships;
- The approaches of key donors including the United States and Japan, whose experiences do not appear to be well-documented in the literature;
- The changing role of North-South partnerships in “Southern” countries with increasingly robust national research communities (e.g. Brazil, India, China, South Africa);
- Southern institutional and governmental approaches to North-South partnerships (strategies, institutional policies, etc.);
- Alternative and emerging partnership structures and activities (e.g. the creation of university chairs, North-South journals, etc.);
- Researchers’ and institutions’ motivations for entering into North-South partnerships;
- Maximizing the potential of North-South research partnerships to be mutually beneficial;
- The outputs and outcomes/impact of North-South research partnerships (i.e. what is the “value-added” or strategic benefit of pursuing research through cooperative frameworks?), and the receptivity of policymakers and communities to research produced through North-South research projects;

- The challenge of designing collaborative research agendas that advance mutual interests, but are firmly rooted in Southern needs and priorities;
- The challenge of setting appropriate agendas for capacity-building activities;
- Responses to the challenge of opening up cooperation opportunities to non-traditional partners.

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"New Forms of Collaboration in Development Research and Training." *International Social Science Journal* 27, no. 4 (1975).

This article identifies two related trends with significance for development research and training: (i) a "growing strength and commitment to self-reliance" within Southern development research and training institutes; and (ii) increasing interest in new forms of research and training collaboration between Northern and Southern institutions. Recognizing that current (1975) approaches to collaboration are "inadequate and sometimes counter-productive", four lines of action are identified to improve the relevance of development research and training activities: (i) "a reorientation of research and training" (towards implementation, policy-relevance and a focus on 'basic issues of development); (ii) "a strengthening of Third World research and training institutions"; (iii) "a change in rich-country policies" (e.g. focusing on rich-country policies that compound Southern challenges; including Southern researchers in decision-making on funding; providing longer-term, flexible and diversified funding; recognizing the comparative advantage of research partnerships) and (iv) "a new basis for collaboration" (towards more selective, effective and mutually beneficial collaboration which enables a broader and more critical approach).

Ad Hoc Committee on Health Research. *Investing in Health Research and Development*. Geneva: WHO, 1996.

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Appadurai, A. "Grassroots Globalization and the Research Imagination." *Public Culture* 12 (2000).

Ashman, D. "Strengthening North-South Partnerships: Addressing Structural Barriers to Mutual Influence." *IDRC Reports* 16, no. 4 (2000).

AUCC. *Highlighting the Impacts of North-South Research Collaboration among Canadian and Southern Higher Education Partners*. Ottawa: AUCC, 2006.

This report contains the proceedings of a June 2005 AUCC-IDRC conference on the impacts of North-South research partnerships. The report includes the full

papers offered on the conference's four panels, which addressed the following themes: (i) the impacts of collaborative research on policy; (ii) the impact of collaborative research on development challenges; (iii) the impact of collaborative research on capacity building; and (iv) the impact of collaborative research on individual researchers and research teams. The colloquium focused on partnerships with Canadian higher education institutions, and the conference report is certainly one of the most exhaustive discussions available of the impact of collaborative research.

Avilés, L. A. "Epidemiology as Discourse: The Politics of Development Institutions in the Epidemiological Profile of El Salvador." *Journal of Epidemiology and Community Health* 55 (2001).

Although not principally concerned with North-South research partnerships, this paper highlights an interesting issue in collaborative research—the extent to which theoretical assumptions shaped by the institutional setting affect scientific studies. Using discourse analysis, Avilés examines a descriptive epidemiological study of El Salvador conducted by USAID in 1994. The author argues that the theoretical basis of the study, the epidemiological transition theory, depoliticises development and reflects the ethnocentrism of the “colonizer’s model of the world.” On the basis of this case, Avilés concludes that “event descriptive epidemiological assessments or epidemiological profiles are imbued with theoretical assumptions shaped by the institutional setting under which epidemiological investigations are conducted.”

Bagachwa, M. S. "Proceedings of the Workshop on Research Programmes for Development." Arusha, DGIS, 19-23 June 1999.

Baud, I. S. A. "North-South Partnerships in Development Research: An Institutional Approach." *International Journal of Technology Management & Sustainable Development* 1, no. 3 (2002).

This paper argues that Southern knowledge-producing systems need to become more integrally and equitably linked to international research networks in order to challenge the global “knowledge divide”. Baud discusses how North-South research partnerships can contribute to shrinking the knowledge divide, drawing in particular on evidence from Dutch North-South research programs, and recent innovative Dutch partnerships in North-South research, which promote stronger and more equitable exchange between European and Southern researchers. Baud argues that joint programmatic research results in more “cumulative patterns of capacity enhancement and international networks”. In comparison to older programs, the new Dutch initiatives place greater emphasis on equal exchange and learning. The conclusion is particularly helpful as it sets out five key issues that require greater attention in future studies of collaborative research: the changing international context (increasing privatization of knowledge); the ways in which research priorities are identified; how “institutional preconditions” affect partnerships; modalities (processes and structures) of

successful partnerships; and the systematic analysis of the outcomes of different types of partnerships.

Bautista, M. C. R. B., L. Velho, and D. Kaplan. *Comparative Study of the Impacts of Donor-Initiated Programmes on Research Capacity in the South*. The Hague: DGIS, Division for Research and Communication, 2001.

Beaulieu, D. *The Contribution of Research to the University Partnerships in Cooperation and Development Tier 2 Program 2004*. Ottawa: AUCC, 2004.

This document summarizes a larger study on the integration of research activities in UPCD Tier 2 projects. The objectives of the study were to: (i) create a profile of research activities implemented in the context of past or current UPCD-supported projects; (ii) categorize research activities on the basis of the size and type; (iii) identify trends; and (iv) identify the degree to which the integration of research activities adds value to the UPCD projects. The study concludes that "through their emphasis on applied research...the research activities of UPCD contribute tangibly to the development efforts of host countries. For this to happen, however, the research conducted must be closely tied to activities aimed at increasing teaching capacities and services to communities. When consistent with this synergetic perspective, the creation and use of new knowledge becomes indispensable to University Partnerships in Cooperation and Development.

Béland, M. "Canadian North-South Collaboration through the UPCD Lens." Nuffic Expert Meeting, 24-25 May 2005.

This paper helpfully positions the University Partnership in Cooperation and Development (UPCD) program within the evolving Canadian policy context, and looks at how the UPCD program has enabled Canadian higher education institutions to work together with Southern higher education institutions. The goal of the UPCD program is "to increase the capacity of developing country education and training organizations to address their country's sustainable development priorities." The paper concludes with four recommendations for making knowledge partnerships a building block of Canada's approach to development: (i) explicitly recognize the importance of strengthening Southern higher education and research institutions in Canada's international policy; (ii) CIDA and AUCC should develop a strategy for the "transfer of cutting-edge knowledge in each of Canada's ODA priorities; (iii) increase funding for UPCD; and (iv) Canada should prioritize strengthening Africa's own knowledge infrastructure.

Bell, M. "Background Discussion Paper for L20 Science and Technology for Development Conference."

Bernard, A. "North-South Collaboration: A Canadian Perspective." in *North-South Scholarly Exchange: Access, Equity and Collaboration*. Edited by G. Shive, S. Gopinathan and W. Cummings. New York: Mansell Publishing Ltd, 1988.

Bernard examines the work of IDRC's cooperative program from 1980-1988. Bernard distinguishes cooperation from technical assistance, and underlines the importance of both partners being equally engaged in learning. Bernard examines challenges such as agenda setting and the dynamics of partnership relations, and writes, "To be genuinely cooperative, it is essential that the research questions subsequently posed address equally the theoretical and applied interests of both partners and that both sites recognize the potential relevance of the findings to their respective national settings and to theory building in those settings."

Bhagavan, M. *The SAREC Model: Institutional Cooperation and the Strengthening of National Research Capacity in Developing Countries*. Stockholm: Swedish Agency for Research Cooperation with Developing Countries, 1992.

Biggs, S. D., and G. Smith. "Beyond Methodologies: Coalition-Building for Participatory Technology Development." *World Development* 26, no. 2 (1998).

Bijker, W., C. Leonard, and Gerwackers. *Research and Technology for Development (RTD), through EU-ACP Policy Dialogue: Scientific Background Methodology and Toolbox*. Maastricht: University of Maastricht, 2001.

Boothroyd, P., and L. Angeles. "Canadian Universities and International Development: A Critical Look." *Canadian Journal of Development Studies* 24, no. 1 (2003).

This article (the introduction to a special edition of the *Canadian Journal of Development Studies*) examines Canadian universities as key actors in advancing international development, including through North-South research partnerships. Boothroyd and Angeles suggest that the "push for the internationalization of universities does not necessarily address international development unless universities demonstrate a strong commitment to make development, and its related goals of poverty reduction, social justice, and global citizenship, central to their teaching, research and outreach functions." The authors argue that Canadian universities could "enhance their contributions to development, while strengthening themselves as learning institutions" in a number of ways. Particularly relevant to North-South research partnerships, they could "structure more lasting partnerships with developing country institutions, [and] approach projects and partnerships in a spirit of mutual learning through engagement with complex social problems rather than as knowledge transfer exercises."

Boothroyd, P. and M. Fryer. "Mainstreaming Social Engagement in Higher Education." *Canadian Journal of Development Studies* 24, no. 1 (2003).

Box, L. *To and Fro: International Cooperation in Research and Research on International Cooperation*. Maastricht: University of Maastricht, 2001.

The transcript of Louk Box's inaugural lecture as Professor of International Cooperation at Maastricht University laments the lack of research on cooperative

research for development, calls for increased attention to this issue, and questions and refutes three main assumptions about international cooperation in research, focusing on science and technology. The first assumption (the “transfer assumption”) is that poor countries cannot produce knowledge themselves, and therefore need the transfer of knowledge and technology from the North. The second assumption (the “professional knowledge assumption”) is that the South needs to rely on professional, objective knowledge rather than depend on transitional knowledge. The third assumption (the “empirical basis assumption”) is that empirical research on international cooperation in science and technology provides the basis for effective policymaking. This work explores the challenges and imperatives of multi-disciplinary work and involving non-traditional researchers and experts (such as local farmers) in study teams. It provides a detailed, valuable perspective on historical approaches to development research cooperation, particularly the Dutch experience.

Box, L., and R. Engelhard. *Making North-South Research Networks Work: A Contribution to the Work on A Common Vision for the Future of Science and Technology for Development*. Geneva: UNCTAD, 1999.

Brehm, M. V. "Promoting Effective North-South NGO Partnerships." *INTRAC Occasional Paper Series* 35 (2001).

Bunders, J. F. G., and C. Mukherjee. "North-South Research Partnerships: Redressing the Imbalance-Paper Presented at the European Conference on Research Partnerships for Sustainable Development." Leiden, 11-13 March 1997.

Caron, F., and J. Tousignant. "New Forms of International Cooperation." in *A New World of Knowledge: Canadian Universities and Globalization*. Edited by S. Bond, J. P. Lemasson. Ottawa: IDRC, 1999.

Castillo, G. T. "Research Partnerships: Issues, Lessons, Results and Dreams for Sustainable Development." *Network Paper-ODI Agricultural Research and Extension Network* 71 (1997).

Castillo addresses the “need for an nature of partnerships in agricultural research”, suggesting that most partnerships are between Northern and Southern institutions. Although South-South partnerships are increasingly prominent, these partnerships typically rely on Northern funding, which hampers their sustainability. North-South partnerships are also essential as South-South partnerships in agricultural research are “less likely to find themselves at the cutting edge of scientific thought”. While North-South partnerships have often been inequitable and dysfunctional, Castillo argues that these partnerships can be successful if sufficient attention is given to learning from past mistakes, defining the terms of partnership, choosing the “right” partner, and acknowledging what each partner can gain from the relationship, which must match their broader institutional priorities. The paper includes some examples of successful partnerships, “and suggests that many of the characteristics of these are not pre-

conditions but are aspirations which can be pursued through the lifetime of the partnership itself.”

Chambers, R. “Poverty and Livelihoods: Whose Reality Counts?” *Environment and Urbanization* 7, no. 1 (1995).

This paper explores the disjunction between development professionals’ views of poverty, and the views of poor people themselves. Chambers argues that “poverty line thinking” and “employment thinking” project Northern concerns on the South, overlooking the more locally rooted, complex and dynamic realities of the poor. The paper examines historically neglected aspects of deprivation such as vulnerability, powerlessness, seasonality and humiliation. Chambers calls for poor people to have the opportunity to analyze and vocalize their own needs, and examines the “implications for policy and practice of putting first the priorities of the poor.” While not specifically focused on research partnerships, this paper is a helpful contribution to the discussion on making local Southern concerns the basis of development research and action.

Chan, L. and S. Costa. “Participation in the Global Knowledge Commons: Challenges and Opportunities for Research Dissemination in Developing Countries.” *New Library World* 106, no. 3-4 (2005).

This paper analyzes recent trends in the open access movement, and addresses the significance of these trends in terms of access to information in the South. The paper draws on the authors’ experiences of working on access to information projects through a variety of North-South partnerships. Chan and Costa set out recommendations for “knowledge workers” in both the North and South on how to contribute to the global knowledge commons.

Clark, N. G., A. J. Hall, V. Rasheed Sulaiman, and Guru Naik. “Research as Capacity-Building: The Case of an NGO-Developed Post-Harvest Innovation System for the Himalayan Hills”.

Cohen, G. A. “Equality of what? on Welfare, Goods and Capabilities.” in *The Quality of Life*. Edited by M. Nussbaum, A. Sen. Oxford: Clarendon Press, 1993.

Cohen, J. “Balancing the Collaboration Equation.” *Science* 288, (2000).

This brief, accessible article discusses three contrasting experiences of longstanding, academically successful research partnerships on HIV-AIDS: the University of Winnipeg/University of Nairobi collaboration, the TANSWED (Tanzania and Sweden) HIV Program, and the French/US-CDC-supported HIV research programs in Cote d’Ivoire. Having visited a dozen collaborative research projects in sub-Saharan Africa, Cohen concludes that tensions are inevitable in North-South research partnerships, and typically relate to equity issues, including finances, access to facilities, transfer of technology, participation, self-reliance, training opportunities and credit for work. The University of Winnipeg-University of Nairobi is a relatively flexible collaboration guided by a Statement of Principles and a list of “expected benefits and mutual

obligations” created after Kenyan collaborators pointed out several suggestions for improving the project, including incorporating the Nairobi team in drafting research proposals, manuscripts and presentations; incorporating more Nairobi staff in the project; sharing equipment, technology, and budgetary information. In contrast, TANSWED is “tightly structured”, with limitations on full-time staff hiring and training opportunities designed to discourage Tanzanian researchers from remaining in Europe.

Consultative Group on International Agricultural Research. *Strengthening Research Partnerships in Sub-Saharan Africa : Report of a Round-Table Dialogue between the Leaders of National Agricultural Systems and the Directors General of International Agricultural Centres*. Centre Directors Committee, CGIAR: 1992.

Costello, A., and A. Zumla. "Moving to Research Partnerships in Developing Countries." *British Medical Journal* 321 (2000).

In this incisive article, Costello and Zumla make four key points. First, they argue that much medical research in the developing world is still “semi-colonial in nature and may have negative effects on partner countries.” Second, they recommend that “annexed site”, expatriate-led research projects be phased out in favour of a partnership model of research in which research projects are led by national teams with foreigners providing only technical support. Third, Costello and Zumla suggest that funding research through national academics and institutions increases the likelihood of translating findings into policy and practice. Lastly, the authors underscore the need for funding agencies to monitor the implementation of equitable partnership principles.

Crossley, M. "Cross-Cultural Issues, Small States and Research: Capacity Building in Belize." *International Journal of Educational Development* 21, no. 3 (2001).

By examining the experience of research initiatives conducted through the Belize Primary Education Development Project in Central America, Crossley discusses how to improve the contribution of research and evaluation to educational development in small states. Crossley's contribution is unique in its focus on small states, the effect of changing geopolitical relations on the nature and orientation of educational research, and approaches to “reducing the vulnerability of small states to the influence of powerful international agendas promoted by the processes of globalization.” Crossley also addresses processes of applied research and evaluation capacity building, and the cultural dimensions of North-South partnerships.

Crossley, M. and K. Holmes. "Challenges for Educational Research: International Development, Partnerships and Capacity Building in Small States." *Oxford Review of Education* 27, no. 3 (2001).

Currie, M., *et al.* "A Model of Impacts of Research Partnerships in Health and Social Services." *Evaluation & Program Planning* 28, no. 4.

While not explicitly related to development research, this paper discusses partnership-building in health and social services research, and presents a “comprehensive, dynamic model of community impacts of research partnerships” in these fields. The model identifies three major areas of mid-term impact: (i) enhanced knowledge; (ii) enhanced research skills; and (iii) use of information. These three areas correspond to the principal functions of research collaboration addressed in the literature (i.e. knowledge generation, research education and training, knowledge sharing). The purpose of the model is to “assist research partners, intended recipients, and funders to understand and evaluate the real-world impacts of community-university research partnerships.” The model also addresses issues of accountability, evaluation and improving the management and impact of research.

Dalrymple, D. “Scientific Knowledge as a Public Good: Thinking about Benefits of Research to Society Could Break Down Barriers.” *The Scientist* 19, no. 2 (2005).

DANIDA. *Partnerships at the Leading Edge: A Danish Vision for Knowledge, Research and Development: Report of the Commission on Development-Related Research*. Copenhagen: DANIDA (Ministry of Foreign Affairs, Denmark), 2001.

The Report of the Commission on Development-Related Research provides a succinct overview of the Commission’s work, and reveals a qualitatively different approach to supporting development research than that espoused by IDRC. Rather than focusing on support for Southern researchers or explicitly North-South research partnerships, the Commission was principally concerned with “Denmark’s future role as a provider of development research”, and the ability of Danish-funded research to meet the Danish government’s policy-making needs. (Indeed, the Terms of Reference for the Committee state that “the development of indigenous research capacity in developing countries, in itself much to be welcomed, [poses] new challenges for the Danish development research sector.”) To the extent that the “Principles for a New Vision” set out in the report address North-South or Southern-based development research, they acknowledge that “public funding of research and research institutions is justified and necessary, both in Denmark and in the South,” but that “researchers who receive funding have a responsibility to Danida, especially in terms of the agency’s need for specific policy advice.” The report encourages Danida to balance support for international research institutions (currently 41% of research funding) with support for national and regional research centres. In addition, the report recognizes the need to foster innovation systems in developing countries, including through partnership arrangements, and urges the inclusion of knowledge, research and innovation as key items in all country/sector programmes.

DGIS. *Report of the Leusden Workshop: The Case of the MMRPs: A Comparative Study of Different Approaches to Development Cooperation of DGIS-Funded Research Programmes for Development*. The Hague: DGIS, 1997.

DGIS. "Research Partnerships for Sustainable Development: Report of the Leiden Conference." Leiden, DGIS, 11-13 March 1997.

DGIS. *Research and Development White Paper*. The Hague: DGIS, 1992.

Dufour, P. "The Emerging Contextual Space for Priority Setting in Development Research" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

While not specifically related to North-South research partnerships, Dufour's chapter provides a valuable macro-level analysis of the changing role of knowledge for development, and the creation of research priorities. Dufour highlights the "growing renaissance" amongst donors interested in supporting knowledge for development, and advocates more "joined-up" decision-making processes in order to advance knowledge for development. However, he underlines the need for Southern countries to be more attentive to their own needs when negotiating with donors. In addition, Dufour emphasizes the need to focus on key areas including scientific advice, public engagement and participatory science processes. Dufour flags some of the major constraints to promoting "knowledge for development", and argues for the use of tools such as foresight, diplomacy, and membership in political "clubs".

Edejer, T. "North-South Research Partnerships: The Ethics of Carrying Out Research in Developing Countries." *British Medical Journal* 319 (1999).

Edejer argues that "North-South research collaboration [in health science] is currently plagued by differing interpretations of ethical standards of doing research in developing countries and by inequitable funding, with only 10% of global research funding going to diseases which comprise 90% of the global burden". This runs counter to the view that health research is a public good, the burdens benefits of which should be equally shared. Edejer posits three guideposts to resolve ethical dilemmas and unfair research funding practices: "Think action. Think local. Think long term." In conclusion, Edejer argues that "scientific advances are not the only yardstick to measure the success of North-South research collaboration: the choice of identified priorities as areas of work, the sustainability of the studied interventions outside the research setting, and the investment in local research capacity are becoming equally important as indicators of success."

In his reply to Edejer, David Wilson (BMJ Letters 1999; 319:1496) highlights two key documents to guide researchers working with Southern communities, the Declaration of Helsinki and the guidelines developed by the Council for International Organizations of Medical Sciences, which prohibit research involving subjects in impoverished communities unless the research is responsive to their community priorities and health needs. This implies asking community members about their priorities, and underlines the need for advocacy and watchdogs in the research process.

Editorial-Lancet. "Will Tropical Medicine Move to the Tropics?" *Lancet* 347 (1996).

This bold editorial argues that replacing the "old-fashioned paternalism" exemplified by colonial-era tropical medicine programs with North-South collaboration "sounds worthy," but that the impetus for such partnerships is likely to come from the west, and will result in the continued perception of health care needs through western eyes. Efforts to improve the health of Southern populations "must avoid the deceits of politicians and businesspeople who, under the guise of collaboration, have foisted on such countries inappropriate technologies and obstructive political and financial structures." The editor points to the poor record of collaborative training exercises, which enable Southern doctors to treat patients who can already afford western medical care, rather than those most in need. The editor argues that tropical medicine institutes should be relocated to the South, which would save money on facilities and travel, enable researchers to observe health-care problems directly, and encourage more Southern medical professional to take part in research, resulting in a "more equitable intellectual balance between the west and the tropics."

Ettorre, E. "Recognizing Diversity and Group Processes in International, Collaborative Research Work: A Case Study." *Social Policy and Administration* 34 (2000).

Ettorre confronts the "myth that most if not all senior researchers who have national prominence can 'successfully' manage international research," which is based on the belief that strong research management is acquired through a trial and error process and requires little skills or training. This paper is based on the assumption that "as research becomes more global, high-quality research management is a necessary resource, which demands sensitivity to diversity as well as an awareness of group processes," and suggests that issues such as gender, language and ethnicity should inform not only research findings but also the practice of international research. The author attempts to set out benchmarks for good international research management, drawing on a large EU-funded research project as a case study.

Fox, J. "Lessons from Action-Research Partnerships: LASA/Oxfam America 2004 Martin Diskin Memorial Lecture." *Development in Practice* 16, no. 1 (2006).

Fox discusses collaborative research partnerships between scholars and activists, focusing on the need to recognize differences between different groups in order to bring them together.

Frame, J. D., and M. P. Carpenter. "International Research Collaboration." *Social Studies of Science* 9, no. 4 (1979).

This paper examines international co-authorship patterns, one of the predominant and yet arguably most rudimentary approaches to measuring international research collaboration. Frame and Carpenter focus on collaboration among experimental scientists, using the 1973 Science Citation Index, and identify three main findings: (i) "the more basic the field, the greater the proportion of international co-authorships"; (ii) "the larger the national scientific enterprise, the smaller the proportion of international co-authorship"; and (iii) "international

co-authorships occur along clearly discernible geographic lines, suggesting that extra-scientific factors (for example, geography, politics, language) play a strong role in determining who collaborates with whom in the international scientific community."

Gaillard, J. "Donor Models for Strengthening Research Capacity Building in Developing Countries." in *Basic Sciences and Development*. Edited by M. J. Garrett, C. G. Granqvist. Aldershot: Ashgate, 1998.

Gaillard, J. "North-South Research Partnership: Is Collaboration Possible between Unequal Partners?" *Knowledge and Policy* 7, no. 2 (1994).

Gaillard argues that North-South scientific collaboration has evolved significantly since the 1960s, and has involved mechanisms including technical assistance and cooperative studies. Gaillard reviews the debates on these mechanisms, suggests that a primary problem is the asymmetry of partnerships and the greater power of Northern partners, and suggests options for more successful collaborations.

Gaillard, J., R. Kastens, and A. Cetto. "Priority Setting in Technical Cooperation: Expanding the Demand for Knowledge-Based Development" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

This article tracks the 40-year evolution of the International Atomic Energy Agency (IAEA) Technical Cooperation Programme, which aims to link scientific research and technological innovation to national, regional and international development priorities. Gaillard, Kastens and Cetto argue that the IAEA programme represents a unique case study for research institutions seeking to shift from technology-driven to demand-based technical cooperation. The authors highlight those aspects of the IAEA programme that support greater self-reliance and sustainability amongst Southern researchers.

Garner, P., A. Kiani, R. Salinas, and J. Zaat. "Tropical Medicine in and Out of the Tropics." *Lancet* 347 (1996).

Georghiou, L. "Evolving Frameworks for European Collaboration in Research and Technology." *Research Policy* 30, no. 6 (2001).

Although not explicitly related to North-South research partnerships, this paper provides a clear analysis of European research cooperation efforts. Specifically, it examines the relationship between three key European programs, the EU's Framework Programme, the EUREKA initiative and COST (the European Cooperation in the field of Scientific and Technical Research). While these separate programs were once rational and effective, Georghiou argues that they are now unsustainable and makes a case for a new, integrated framework that combines the strength of the three schemes to advance European research cooperation.

Georghiou, L. "Global Cooperation in Research." *Research Policy* 27 (1998).

This article provides an interesting counterpoint to the literature on North-South research cooperation as it examines the “emerging phenomenon of global cooperation in research between industrialized countries, manifested in large increases in co-publication between researchers from Europe and other regions; increasing focus on single global facilities in big science; and the emergence of global cooperative programmes.” Georghiou explores motivations for cooperation, contrasting direct research benefits with indirect economic, strategic and political benefits. The author also identifies key barriers to North-North cooperation, including competitiveness issues and institutional mismatches, and argues that formal partnership arrangements are starting to catch up with the proliferation of “bottom-up” global collaboration. Georghiou concludes by highlighting key concerns and challenges for Europe.

Gibbons, M. *The New Production of Knowledge: The Dynamics of Science and Research in Contemporary Societies*. London: Sage Publications, 1999.

Gingras, Y., B. Godin, and M. Foisy. "The Internationalization of University Research in Canada." in *A New World of Knowledge: Canadian Universities and Globalization*. Edited by S. Bond, J. P. Lemasson. Ottawa: IDRC, 1999.

Goldsmith, A. *Research Networks: Tools for Development*. Ottawa: IDRC Evaluation Unit, 1996.

Groupe de Recherche en Administration Publique, Université de Sherbrooke. *University Partnerships in Cooperation and Development: Analysis of Results*. Ottawa: AUCC, 2004.

Hagedoorn, J. "Trends and Patterns in Strategic Technology Partnering since the Early Seventies." *Review of Industrial Organization* 11, no. 5 (1996).

Hall, A. J., N. G. Clark, V. Rasheed Sulaiman, M. V. K. Sivamohan, and B. Yoganand. "New Agendas for Agricultural Research in Developing Countries: Policy Analysis and Institutional Implications." *Knowledge, Policy and Technology* 13, no. 1 (2001).

Taking a historical view, Hall et al. argue that the goals of agricultural research for development have changed markedly over the last forty years. The goals have broadened from an initial, narrow focus on food production to espouse a much larger agenda that includes environmental degradation, poverty alleviation and social inclusion. However, agricultural research systems have not adapted to meet the changing needs associated with this new, broader research agenda. The authors suggest that the limitations of the current conceptual approach to technology development could be mitigated by adopting “analytical principles that view innovation in systemic terms.” In particular, Hall et al. argue for the “National Systems of Innovation” approach, which encourages the flow of knowledge between institutional nodes as the key to innovation performance.

Hall, A. J., N. G. Clark, V. Rasheed Sulaiman, and S. Taylor. "Institutional Learning through Technical Projects: Horticultural Technology R&D Systems in India." *International Journal of Technology Management and Sustainable Development* 1, no. 1 (2002).

Hall, A. J., M. V. K. Sivamohan, N. Clark, S. Taylor, and G. Bockett. "Institutional Developments in Indian Agricultural R&D Systems: The Emerging Patterns of Public and Private Sector Activity." *Science, Technology and Development* 16, no. 3 (1998).

Hall, A., G. Bockett, S. Taylor, M. V. K. Sivamohan, and N. Clark. "Why Research Partnerships really Matter: Innovation Theory, Institutional Arrangements and Implications for Developing New Technology for the Poor." *World Development* 29, no. 5 (2001).

Hall, A., and V. Rasheed Sulaiman "Application of the Innovation Systems Framework in North-South Research." *International Journal of Technology Management & Sustainable Development* 1, no. 3 (2002).

Hall and Sulaiman's paper examines a collaborative development research program on crop post-harvest issues. Hall and Sulaiman highlight the program's unique approach in terms of commissioning policy research on institutional issues limiting the success of the program's studies. Through this process and other learning activities, the program adapted its approach, emphasizing partnerships and paying greater attention to institutional contexts. Hall and Sulaiman explain these developments in terms of the "exploration and application of the innovation systems framework." Lessons include: (i) the need to see North-South research collaboration in terms of its effect on the development of national systems of partners and processes concerned with the evolution and implementation of innovations; and (ii) that donors should recognize the importance of actively pursuing their own institutional learning in order to more effectively support collaborative research.

Hauck, V., and T. Land. *Beyond the Partnership Rhetoric: Reviewing Experiences and Policy Considerations for Implementing 'Genuine' Partnerships in North-South Cooperation*. Maastricht: European Centre for Development Policy Management, 2000.

This paper reflects on a European Centre for Development Policy Management (ECDPM) program designed to promote partnerships with research and policy institutions in the African, Caribbean and Pacific (ACP) region, with a view to nurturing institutional capacities and regional networks of expertise. Hauck and Land provide an initial "stocktaking" of lessons from the first years of the program, and debates the extent to which partnership promotes capacity development. The paper "tries to understand what it takes to make "genuine" partnership work at an organizational level in North-South cooperation...[and] to encourage policy-makers and practitioners to think about the terminology, concept and practice of partnership, the relationship between partnership and capacity-building, and the implications for development organizations of adopting the partnership approach."

Helland, J. "The Cooperation between the Institute of Development Management-IDM (Tanzania) and Agder College (Norway)." *CMI Working Paper 4*, (1999).

Higginbotham, N. "Developing Partnerships for Health and Social Science Research." *Social Science and Medicine* 35 (1992).

This paper discusses the International Clinical Epidemiology Network's (INCLEN) efforts to integrate a social science component into its work in the developing world. Higginbotham describes INCLEN's approach to strengthening partnerships between social scientists and clinic epidemiologists, as well as the challenges involved, such as recruiting and training social scientists to work in the health sector. Higginbotham points out the need for international partnerships to bolster infrastructure for professional growth and career sustainability in health social science.

Heron, B. "Gender and Exceptionality in North-South Research: Reflecting on Relations." *Journal of Gender Studies* 13, no. 2 (2004).

Written from the personal perspective of a feminist social scientist engaged in North-South research, this article examines how white, feminist researchers "participate in the perpetuation of racial domination on a global scale". The author analyses the assumptions that underpinned her own research in Africa, including a sense of entitlement, and a "presumed availability on the part of African people" regarding the researcher's interventions. Heron considers whether situated feminism associated with Gender and Development theory would have resolved the problems inherent in these assumptions, and concludes that "a focus on interlocking systems of oppression may produce a more transformative effect than seems possible through Gender and Development approaches."

Heron, B. "Innocence and Power in North-South Research", Paper Presented at the International Studies Association Conference, Toronto.

Hollway, W., and T. Jefferson. *Doing Qualitative Research Differently*. London, New Delhi: Sage, 2000.

Horton, R. "North and South: Bridging the Information Gap." *Lancet* 355 (2000).

IDRC. *Research without (Southern) Borders: The Changing Canadian Research Landscape*. Ottawa: AUCC, 2003.

Impact-International. "Controlling Academia: US 'Aid' as Neo-Colonialism." <http://www.africa2000.com/IMPACT/educate.html>.

James, R. "Power, Partnership and Capacity Building." *Ontrack Capacity Building News* 4 (2000).

Jentsch, B. "Making Southern Realities Count: Research Agendas and Design in North-South Collaborations." *International Journal of Social Research Methodology* 7, no. 3 (2004).

This paper addresses the challenges that arise when common research partnership principles are applied to North-South collaborations. It discusses the dynamics that result when research agendas are not equally shared by the partners, and examines the roles partners take on during fieldwork, particularly in terms of control over the project. Jentsch explores issues of funding, as well as the potential for Southern-led projects that better reflect Southern realities. Jentsch argues that hierarchical research arrangements may be beneficial in some cases, for example when they favour the Southern partner; that the capacities and weaknesses of each collaborator should be made explicit; and that capacity building exercises should not be limited simply by Northern interests.

Jentsch, B., and C. Pilley. "Research Relationships between the South and the North: Cinderella and the Ugly Sisters?" *Social Science & Medicine* 57, no. 10 (2003).

Birgit and Pilley note that while the literature on North-South health research collaboration emphasizes the need for "real" partnerships and laments obstacles such as structural inequalities and colonial legacies, it is short on suggestions for *how* to integrate principles of partnership into the research process. Through two "Northern-perspective" case studies, this article addresses processes and dynamics affecting North-South health research partnerships. The first case study focuses on capacity building, publications and the use of data, while the second highlights reliance on Southern contributions, responsibility to the local research context, and issues of reciprocity. Birgit and Pilley then explore Southern researchers' reflections on issues Northern researchers have identified as key collaborative concerns. They conclude that "advantage should be taken of the fact that Southern and Northern colleagues often share similar values regarding research collaborations", despite structural and historical obstacles, and suggest practical arrangements to move beyond the typical roles of the North as a "provider" and the South as a "receiver."

Jones, M. L., and P. Blunt. "Twinning as a Method of Sustainable Institutional Capacity Building." *Public Administration and Development* 19, no. 4 (1999).

This well-argued and thoroughly researched article presents the results of a study on the efficacy of Sida's use of "twinning" to promote institutional capacity building in development cooperation. Jones and Blunt analyze twinning arrangements between Statistics Sweden and the National Statistical Centre of Laos, and the Office of the Auditor General of Namibia and the Swedish National Audit Bureau. However, this article is relevant to North-South research partnerships as twinning has often been used as a method to strengthen the capacities of higher education institutions and facilitate collaborative research projects. The study indicates the "the twinning method has potential advantages over other modes of development cooperation, particularly in that it offers enhanced possibilities for organizational learning and sustainable capacity

building. However, the study suggests that this potential is not being fully exploited. Twinning arrangements have produced major benefits in professional/technical upgrading, but there is less evidence of outcomes at the level of sustainable institutional capacity building." Rather than having distinctive advantages, developing country partners viewed twinning as a routine process that presents comparable benefits to other capacity building methods. Jones and Blunt suggest how twinning approaches could be "renovated", and discusses how Sida and other development agencies could "enhance their development cooperation in the realm of governance by moving *beyond* twinning."

Katz, J. M., and B. R. Martin. "What is Research Collaboration?" *Research Policy* 26, no. 1 (1997).

Katz and Martin suggest that despite plentiful studies on research collaboration, relatively little attention has been devoted to the concept of "collaboration" itself, nor to the efficacy of co-authorship as a criterion to measure collaboration. This paper distinguishes between collaboration at different levels, and argues that co-authorship is no more than a partial indicator of collaboration. International and inter-institutional collaboration does not necessarily need to involve in-depth collaboration between individuals. Katz and Martin also advocate a more symmetrical approach to comparing the costs of collaboration when developing research collaboration policies. This study was carried out with support from the British Economic and Social Research Council (ESRC), and in particular through the ESRC Centre for Science, Technology, Energy and Environment Policy (STEPP), and ESRC programs on Academic Research Performance Indicators and the Interface Between Corporate R&D and Academic Research.

Kaul, I., I. Grunberg, and M. Stern. *Global Public Goods: International Cooperation in the 21st Century*. New York: Oxford University Press, 1999.

Keiser, J., J. Utzinger, M. Tanner, and B. H. Singer. "Representation of Authors and Editors from Countries with Different Human Development Indexes in the Leading Literature on Tropical Medicine: Survey of Current Evidence." *BMJ: British Medical Journal* 328, no. 7450 (2004).

Kelly, J. G., S. Azelton, C. Lardon, L. O. Mock, S. D. Tandon, and M. Thomas. "On Community Leadership: Stories about Collaboration in Action Research." *American Journal of Community Psychology* 33, no. 3/4 (2004).

Kerr, M. *Partnering and Health Development: The Kathmandu Connection*. Ottawa: University of Calgary Press and IDRC, 1996.

Kerr analyses his extensive experiences in building partnerships with the University of Calgary and organizations in the Philippines and Nepal, focusing on participatory health interventions and medical education. Kerr addresses the contested language of development, the various options for partnership, and advocates the development of partnerships that provide mutual benefit.

King, K. "Banking on Knowledge: The New Knowledge Projects of the World Bank." *Compare* 32, no. 2 (2002).

Koch-Weser, D., and A. Yankauer. "The Authorship and Fate of International Health Papers Submitted to the American Journal of Public Health in 1989." *American Journal of Public Health* 83, no. 1 (1993).

Krishna, V. V. "Science, Technology and Counter-Hegemony: Some Reflections on the Contemporary Science Movements in India." in *Science and Technology in a Developing World*. Edited by Shinn et al. Dordrecht: Kluwer Academic Publishers, 1997.

Kruss, G. "Tensions in Facilitating Higher Education-Industry Research Partnerships in High Technology Fields in South Africa." *Journal of Higher Education Policy & Management* 28, no. 1 (2006).

Lansang, M. A., and R. Olveda. "Institutional Linkages: Strategic Bridges for Research Capacity Strengthening." *Acta Tropica* 57 (1994).

Lansang and Olveda discuss the experiences of the Institute for Tropical Medicine in the Philippines in terms of the development of research capacity, particularly through institutional linkages between the South and North. The authors maintain that institutional linkages "greatly facilitate the process of research strengthening through graduate study programs, technology transfer, "hands-on" research training in the field, expanded networking with partners' contacts, and continued scientific exchanges in the context of actual research programs," and identify the strengths and weaknesses of different approaches to institutional development.

Lewis, D. "Development NGOs and the Challenge of Partnership: Changing Relations between North and South." *Social Policy and Administration* 32 (1998).

Maclean, G. D. "Building Capacity: The Role of the Consultant." in *NGO Networks for Health Workshop: Safe Motherhood--Achieving More Together*. Chiang Mai: 2000.

Maina-Ahlberg, B., E. Nordberg, and G. Tomson. "North-South Health Research Collaboration: Challenges in Institutional Interaction." *Social Science and Medicine* 44 (1997).

This paper presents the results of a study of a small number of European health researchers working in partnership with Southern researchers. Based on the results of surveys and interviews, the authors determined that most collaborations were initiated from the North, and are mono-disciplinary or partly interdisciplinary. In the projects studied, socio-cultural conflicts and misunderstandings and problems regarding authorship and publication were reportedly rare. Maina-Ahlberg, Nordberg and Tomson argue that while collaborative research has great potential, it is a "complex and poorly understood process." The authors note that "difficulties related to logistics and finance are easily and freely discussed, while there is little evidence that transdisciplinary

research is conducted or even discussed." In conclusion the authors recommend that reports on collaborative research project results include more information on the partnership arrangements, including details on management, ethics and finance.

Marschan-Piekkari, R., S. Macdonald, and D. Assimakopoulos. "In Bed with a Stranger: Finding Partners for Collaboration in the European Information Technology Program." *Science and Public Policy* 28, no. 1 (2001).

Maskus, K. and J. Reichman. "The Globalization of Private Knowledge Goods and the Privatization of Global Public Goods." *Journal of International Economic Law* 7, no. 2 (2004).

Mawdsley, E., J. Townsend, and G. Porter. "Trust, Accountability and Face-to-Face Interaction in North-South NGO Relations." *Development in Practice* 15, no. 1 (2005).

Mbabazi, P., S. J. MacLean, and T. M. Shaw. "Governance for Reconstruction in Africa: Challenges for Policy Communities and Coalitions." *Global Networks* 2, no. 1 (2002).

While the arguments forwarded in this article are unfortunately disjointed, Mbabazi, MacLean and Shaw convincingly underline the growing importance of non-state actors, particularly think tanks, in identifying and responding to governance and human security challenges in Africa. Mbabazi, MacLean and Shaw stress the importance of national and international partnerships and networks between non-state actors, and highlight Partnership Africa Canada's research and advocacy on "blood diamonds" as an example of a partnership that had significant impact on the international human security agenda.

Mosse, D. "Process-Oriented Approaches to Development Practice and Social Research." in *Development as Process: Concepts and Methods for Working with Complexity*. Edited by D. Mosse, F. Farrington and A. Rew. New Delhi: Indian Research Press, 2001.

Mouton, J. "Science for transformation: Research agendas and priorities in South Africa" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

Mouton uses the case of South Africa to respond to the key question: "How do research agendas reflect and represent the research interests of different constituencies?" Mouton suggests that public sector research in South Africa is used to promote reconciliation and transformation in a country still undergoing massive transition. Consequently, scientific research in South Africa is motivated by a wide-ranging and ambitious "transformative agenda" that has as a priority the reformation of the scientific research system to focus on the concerns of the majority of South Africa's citizens. Although not specifically focused on North-South research collaborations, this article provides an insightful analysis of how South Africa's national research priorities are set, and the extent to which the

government and national research agencies are able to meet the targets of an ambitious agenda.

Muller, J. "Our Relative Ignorance: Experience from North-South Research Collaboration." Research Centre for Development and International Relations, University of Aalborg.

Nair, K. N., and V. Menon. "Capacity Building for Demand-Led Research: Issues and Priorities." *European Centre for Development Policy Management Policy Management Brief 14* (2002).

This brief examines the potential of "demand-led research" (embraced in particular by the Dutch) as a means of redressing the imbalance in North-South research. Nair and Menon argue that "demand-led research can generate knowledge that will empower individuals and enable them to acquire the capabilities necessary to make informed choices of their own, without intellectual inputs from the North. Nevertheless, to create the basic minimum conditions upon which these capacities can be built, North-South collaboration is critical."

Nair, K. N., and V. Menon. "Capacity Building for Demand-Led Research: Issues and Priorities." *ECDPM Discussion Paper 45* (2002).

This paper discusses "demand-led research", a prevalent concept in Dutch support for development research. Nair and Menon emphasize the facilitating role Northern agencies can play in increasing capacity to carry out demand-led research in the South, generally overlooking the benefits Northern partners gain through nurturing links with Southern research partners.

Nalstead, S. B., P. Tugwell, and K. Bennett. "The International Clinical Epidemiology Network (INCLIN): A Progress Report." *Journal of Clinical Epidemiology* 44 (1991).

National Centre of Competence in Research (NCCR) North-South. *Publication Strategy for the NCCR North-South*. Bern: NCCR North-South, 2006.

Navaretti, G. B., and C. Carraro. "From Learning to Partnership: Multinational R&D Cooperation in Developing Countries." *Economic Innovation and New Technologies* 8 (1999).

Neufeld, V., J. Gyapong, and Torres Edejer, T. *South-Canada Research Partnerships for Health and Development*. Ottawa: Canadian Coalition for Global Health Research, 2006.

Nhema, A. "OSSREA's Contributions to Human Security Research in Africa-Paper Presented at A Decade of Human Security: Mapping Governance Innovations and Prospects Conference." Simon Fraser University, Vancouver, BC, 25-26 February 2006.

Nhema, A. "Prospects for Peacebuilding in Africa through Peace, Security and Development Research." http://insecurityforum.org/alfred_nhema/174 (accessed August 22, 2006).

In this brief article, Nhema highlights six challenges facing those engaged in research on peace, security and development: (i) ensuring research is comprehensive, anchored in local realities, and not unduly constrained by disciplinary boundaries; (ii) embracing opportunities to work collaboratively in diverse, multi-disciplinary teams drawn from institutions with shared visions; (iii) rooting peacebuilding research in a deep understanding of the causes of conflict in different contexts; (iv) meeting the growing need for networking, coordination and collaboration between researchers at local, national and international levels (Nhema points to an absence of networking and coordinating mechanisms which he says hampers research activities, frustrates researchers, increases the risk of unnecessary repetition of research, and prevents Southern "voices" from being heard); (v) ensuring peacebuilding research is relevant to local people who are supposed to utilize it; and (vi) disseminating the results of peacebuilding research activities nationally and internationally.

NORRAG. "Knowledge Generation in High Education: New Challenges for North-South International Collaboration." *NORRAG News* (1998).

Nwamuo, C. "Capacity-Building through North-South Partnership in the African University Sector." *Capacity.Org* 6 (2000).

This brief article underlines the need for local "buy-in" to achieve successful North-South partnerships targeting the African University sector. Nwamuo highlights the purpose of capacity building partnerships, and the conditions for effective capacity building. These include clear mutual understanding of the partnership criteria; mutual commitment and trust; respect for cultural norms and values; an open and transparent approach to policy formulation, funding and implementation; and readiness to build long-term relationships. Nwamuo also makes a number of recommendations for the design and realization of equitable partnerships, such as carrying out needs assessments prior to the start of a partnership; establishing staff development and teacher exchange programs; supporting income generating projects in African universities; encouraging the generation of ICT "content" in African universities; and ensuring the donor funding is distributed equitably across Africa, rather than concentrated in a handful of older universities.

Ogden, J., and J. Porter. "The Politics of Partnership in Tropical Health: Researching Tuberculosis Control in India." *Social Policy and Administration* 34 (2000).

Ogden and Porter suggest that the closing gap in capacity to carry out high-quality studies is changing the nature of North-South research. The authors explore "the difficulties of negotiating a productive path through the dynamics of power and control that characterize international research collaborations," drawing on examples from their research in public health and medicine. Ogden and Porter highlight the differences between "those aspects of the relationship

that respond to institutional needs and agendas and those aspects that relate more directly to the human relationships upon which the work in the field actually depends," labelling the relationship between researchers as a "partnership" and the institutional relationship "collaboration."

Oldham, G. "International Scientific Collaboration: A Quick Guide." SciDevNet. <https://www.scidev.net/dossiers/index> (accessed September 17, 2006).

Oldham summarizes the core issues surrounding collaborative research that are likely to face policymakers in the South and North. Oldham examines national collaboration strategies and the benefits and possible disadvantages of international collaboration (both formal and informal), as well as ethical considerations and the impact of information and communications technology on international scientific collaboration.

Olinisakin, F., and P. Scholey. "External Review of the Democratic Transition Project and Rehabilitation Project: Unpublished Project Review Prepared for the Conflict Research Unit, Clingendael Institute".

Parmar, I. "American Foundations and the Development of International Knowledge Networks." *Global Networks* 2, no. 1 (2002).

This theoretically detailed yet politically astute paper addresses the "role and influence of three American foundations—Rockefeller, Carnegie and Ford—in developing international knowledge networks that significantly impacted upon the Third World, helping to consolidate US hegemony after 1945, fostering pro-US values, methods and research institutions." The activities of these foundations in the United States solidified the "intellectual hegemony of 'liberal internationalism', of empirical scientific research methods, and of policy-oriented studies." Parmar examines the key role these foundations played following World War II in exporting these intellectual values to Latin America, Indonesia and Africa following the end of World War II, and explains their influence in terms of Gramscian theory.

Patel, S. "International Collaboration in Social Science Research: Lessons from IDPAD." *Economic and Political Weekly* 37, no. 3 (2001).

This article examines the 17-year history of the Indo-Dutch Programme for Alternatives in Development (IDPAD), "one of the most important and successful international research collaborations in Indian social sciences," and identifies lessons for future partnerships. IDPAD carried out a wide range of collaborative activities, including research projects, grant distribution, scholarly exchanges, publications and networking. The author discusses various important features of the partnership which, he argues, neutralized the inequalities inherent in North-South partnerships. Patel emphasises the importance of the developing joint research questions and investigating these questions through joint programmes, but acknowledge the difficulty associated with disparate historical and social perspectives. He applauds IDPAD's efforts to overcome this hurdle by developing a "new social science language" shared between the partners, and

underlines the importance of IDPAD's South-South comparative projects, and ensuring that IDPAD was guided by academics rather than bureaucrats.

Peterson, W. et al. "Methods for Planning Effective Linkages." *ISNAR Briefing Paper 45* (2001).

Pirani, P. A. *Issues and Challenges for Development and Development Research*. Bonn: EADI, 2006.

This short report was issued following a roundtable convened in the Netherlands by the European Association of Development Research and Training Institutes and other organizations as part of the IDS's 40th anniversary activities. One of the key questions addressed was "What are the key and emerging development issues that are likely to shape the development research agenda...in 2015 and beyond?" The report suggests "research priorities should be determined and based in the South," and calls for capacity building activities to make this possible. The discussion addressed both the "topics" and "nature" of future development research, with the latter seen as the key issue. The report calls for European research institutes to establish a common agenda in the context of a research network, to better influence policy at the European level.

Plucknett, D. L., N. J. H. Smith, and S. Ozgediz. *Networking in International Agricultural Research*. Ithaca: Cornell University Press, 1990.

Rakowski, A. R. "The Ugly Scholar: Neocolonialism and Ethical Issues in International Research." *American Sociologist* 24 (1993).

Rakowski argues that social science ethical guidelines often fail to address the difficulties sociologists encounter when carrying out international research, which "potentially endangers research and researcher alike." Rakowski responds to the gap in the literature on ethics and international research by drawing on her experiences in Latin America, and the work of other social scientists.

RAWOO. *Making Development Research Pro-Poor: Review of 2001-2002*. The Hague: RAWOO, 2003.

RAWOO. *Balancing Ownership and Partnership in Development Research: Review of 1999 and 2000*. The Hague: RAWOO, 2001.

RAWOO. *North-South Research Partnerships: Issues and Challenges*. The Hague: RAWOO, 2001.

RAWOO. *Utilization of Research for Development Co-Operation: Linking Knowledge Production to Development Policy and Practice*. The Hague: RAWOO, 2001.

RAWOO. *Mobilizing Knowledge for Post-Conflict Management and Development at the Local Level*. The Hague: RAWOO, 2000.

RAWOO. *Framework for a Ghanian-Dutch Programme of Health Research for Development*. The Hague: RAWOO, 1998.

RAWOO. *Framework for a Philippine-Dutch Programme of Biodiversity Research for Development*. The Hague: RAWOO, 1998.

Reutter, L., M. J. Stewart, K. Raine, D. L. Williamson, N. Letourneau, and S. McFall. "Partnerships and Participation in Conducting Poverty-Related Health Research." *Primary Health Care Research & Development* 6, no. 4 (2005).

Reutter *et al's* article addresses efforts to promote partnership and participation of community members in a study of low-income Canadians' use of health-related services and supports. While not explicitly related to development research, this paper contains salient reflections on creating partnerships between research teams and local communities, and enabling community participation in research. Reutter *et al* discuss the barriers to participation facing people living in poverty, and avenues to channel their input into the development of policies, services and programmes.

Ritchie, P. L. and M. Sabourin. "Contributing to World Development: Research Activities of the International Union of Psychological Science." *International Journal of Psychology* 36, no. 1 (2001).

Ronald, A., et al. "The Nairobi STD Program: An International Partnership." *Infectious Disease Clinics of North America* 5 (1991).

This paper details the first decade of a partnership on genital ulcer disease research between two university departments at the University of Manitoba and the University of Nairobi. It addresses the importance of training, as well as suggestions for the evolution of the program.

Royal Netherlands Academy of Arts and Sciences. *North-South Research Cooperation*. Amsterdam: Royal Netherlands Academy of Arts and Sciences, 2002.

This is an informative and extensive collection of papers from a 2001 conference on North-South research partnerships, sponsored by the Royal Netherlands Academy of Arts and Sciences, the Netherlands Ministry of Foreign Affairs, the Netherlands Foundation for the Advancement of Tropical Research (WOTRO/NOW) and the Netherlands Development Assistance Research Council (RAWOO). Many of the papers contained in this collection were published in journals such as the *International Journal of Technology Management & Sustainable Development*. (See Baud 2002 and Velho 2002 in this review.)

Schoeters, L. *et al*. "Partnership Working between University Researchers and Self-Advocacy Organizations." *Journal of Intellectual Disabilities* 9, no. 4 (2005).

Scholey, P. "Peacebuilding Research and North-South Research Partnerships: Perspectives, Opportunities and Challenges." in *A Decade of Human Security: Mapping*

Governance Innovations and Prospects. Edited by S. McLean, D. Black and T. Shaw. London: Ashgate, 2006.

Scholey's chapter on the North-South divide in peacebuilding research starts with the observation that only a small proportion of peacebuilding research is the result of North-South partnerships. This has left peacebuilding research underdeveloped in critical ways, given that the majority of conflicts occur in the South, while most peace-building policies are set by Northern powers. Drawing on the experience of IDRC's Peace, Conflict and Development program initiative, Scholey offers several insightful observations on the challenges facing the peacebuilding research field, including defining the research agenda, methodological hurdles and the challenges involved in North-South research collaborations. Challenges include the "disconnect between policy formulation and research"; the "incompatibility of research and policy timelines"; dismissive attitudes towards policy-relevant research within the academic establishment; the underdevelopment of Southern research institutions; unstable field research environments; "fractured research, advocacy and policy communities"; the "asymmetry inherent in North-South relations"; and the domination of the research agenda by Northern policy concerns rather than projects designed to address immediate, concrete problems in communities grappling with armed conflict. Scholey also highlights the benefits associated with North-South peacebuilding research partnerships, and sketches directions towards a new model of collaborative research relationships. Key points include equally involving Northern and Southern researchers in ground-level research and analysis; innovatively resourcing and rewarding joint peacebuilding research; and developing an "ethos of solidarity" between Northern and Southern counterparts.

Schweigman, C., and Van Der Werf, I. *Development-Related Research Collaboration: A Second Look at the Role of the Netherlands*. Amsterdam: Royal Tropical Institute, 1994.

Schweigman, and Bosma, eds. *Research and Development Cooperation: The Role of the Netherlands*, 1990.

Seck, D., and P. L. Colvin. *Adjusting Structural Adjustment: Best Practices in Policy Research in Africa*, 2003.

Secretariat of the International Task Force on Global Public Goods. *Expert Paper Series Six: Knowledge*. Stockholm: Sweden, 2006. See <http://www.gpgtaskforce.org/uploads/files/177.pdf> .

Shute, J. "From here to there and Back again: International Outreach in the Canadian University." in *A New World of Knowledge: Canadian Universities and Globalization*. Edited by S. Bond, J. Lemasson. Ottawa: IDRC, 1999.

Simonsen, J. G., J. P. Myklebust, and H. Karlsen. "North-South Cooperation in Higher Education and Research: Nordic Goals, Strategies, Issues and Experiences-

Proceedings from the NUAS-NUS Conference." Bergen, University of Bergen and the Nordic Association of University Administrators (NUAS), 15-16 April 1999.

This conference report provides a very useful perspective on Nordic approaches to North-South cooperation in higher education and research. The papers presented at the conference address a number of issues including key Nordic experiences and actors (focusing on universities); institutional arrangements and networks; and strategies for Nordic regional cooperation in the future. It is worthwhile to note that all of the presenters and participants were representatives of Nordic institutions; the conference does not appear to have involved an exchange of views with Southern partners.

Seguin, B., P. Singer, and A. Daar. "Scientific Diasporas." *Science* 312, (2006).

This brief piece analyses the role members of Southern diaspora communities can play in supporting science and research for development in their home countries.

Sivamohan, M. V. K., and A. Hall. *Emerging Patterns and Partnerships of Private Sector and Public Science Activity for Horticulture Development in India: Reflections from some Case Studies*. Chatham: National Resources Institute, 1998.

Smyth, M., and G. Robinson. *Researching Violently Divided Societies: Ethical and Methodological Issues*. Tokyo and London: UN University Press and Pluto Press, 2001.

Social Science Research Council. *International Scholarly Collaboration: Lessons from the Past-A Report of the SSRC Inter-Regional Working Group on International Scholarly Collaboration*. New York: SSRC, 2000.

Spencer, J. "Anthropology, Nationalism and Culture in Sri Lanka." *Current Anthropology* 31, no. 3 (1990).

Squire, L. "The Global Development Network." *Global Networks* 2, no. 1 (2002).

This brief article profiles one of the leading networks of Southern think-tanks and research institutes, the Global Development Network (GDN), which supports and links policy and research institutes engaged in development issues. The GDN works to generate and share new knowledge about development, bridge the gap between research and implementation, and build the capacity of Southern research and policy institutions to undertake strong, applicable research programs.

Stavenhagen, R. "Decolonising Applied Social Sciences." in *Social Research: Philosophy, Politics and Practice*. Edited by M. Hammersley. London, New Delhi: Sage, 1993.

Stein, J. "Opening Networks in Closing Systems: Knowledge Networks and Public Policy." Ottawa: IDRC, 2003.

Stiglitz, J. J. E. "Knowledge as Global Public Good." in *Global Public Goods, International Cooperation in the 21st Century*. Edited by I. Kaul, I. Grunberg and M. Stern. Oxford: Oxford University Press/UNDP, 1999.

Stone, D. "Introduction: Global Knowledge and Advocacy Networks." *Global Networks* 2, no. 1 (2002).

In her introduction to *Global Networks*, Diane Stone argues that "global knowledge networks", consisting of actors including foundations, think tanks, development agencies, consultancy firms, universities, academics and individual experts, "have become important components of the global political economy". Stone evaluates concepts of networks (the epistemic community and transnational issue networks); theories about the international diffusion of ideas; and some of the literature on the connections between politics and ideas. Stone discusses the importance of control over knowledge and information for policy-makers, as well as the status, prestige and political empowerment that scholarly expertise and professional training gives to individual experts who are drawn into policy circles. In addition, Stone examines the inextricable connections between norms and values and "scientific advice".

Stone, D. "Special Edition on Global Knowledge and Advocacy Networks." *Global Networks* 2, no. 1 (2002).

Stone, D. *Banking on Knowledge: The Genesis of the Global Development Network*. London: Routledge, 2000.

Stone, D. "Think Tanks Across Nations: The New Networks of Knowledge." *NIRA Review* 7, no. 1 (2000).

While various studies have addressed the role that think tanks play at the national level, an important aspect of think tank activity is often overlooked: the construction of regional and international networks of policy research institutions. Just as the number of think tanks around the world is increasing, networks of think tanks are expanding and diversifying. In this brief paper, Stone distinguishes between think tank networks ("composed of research institutes and policy centres that are organizationally similar in structure and general objectives"), the activity of networking ("a mode of interaction [that] can take many forms: interpersonal interaction, organizational contacts, and inter-networking") and policy networks ("a conceptual category to describe coordinated patterns of interaction to influence policy").

Struyk, R. "Transnational Think-Tank Networks: Purpose, Membership and Cohesion." *Global Networks* 2, no. 1 (2002).

This article examines an increasingly important and rapidly evolving type of actor in North-South research partnerships: think-tanks. Struyk focuses on transnational networks of think-tanks, noting their striking variety of forms in terms of focus (regional or global), membership (open or restricted), and orientation (knowledge dissemination, tight policy focus, etc.). Struyk sets out a

classification system for contemporary think-tank networks, with the goal of clarifying understanding of the purposes and activities of different networks.

Sverdrup, K. "Surveys of the Research Sector in Partner Countries as a Basis for Norwegian Support for Higher Education and Research." in *Enhancing Research Capacity in Developing and Transition Countries*. Edited by Swiss Commission for Research Partnerships with Developing Countries (KFPE). Bern: Swiss Commission for Research Partnerships with Developing Countries (KFPE), 2001.

Swiss Commission for Research Partnership with Developing Countries (KFPE). *Guidelines for Research in Partnership with Developing Countries*. Bern: Swiss Academy of Sciences, 1998.

In this publication, KFPE sets out eleven principles of research partnership and a Charter of North-South Partners, developed by Jacques Gaillard. The principles are examined in relation to case studies of projects in Peru, Ghana and the Great Lakes region.

Swiss Commission for Research Partnerships with Developing Countries (KFPE). *Enhancing Research Capacity in Developing and Transition Countries*. Bern: Swiss Commission for Research Partnerships with Developing Countries (KFPE), 2001.

This book resulted from a September 2000 workshop in Bern on North-South research partnerships and capacity building. The collection includes case studies of partnerships between European and Africa, Asian and Latin American institutions, and summaries of donor experiences (Denmark, UK, Netherlands, Sweden, Norway, Germany, Switzerland).

Swiss Commission for Research Partnerships with Developing Countries (KFPE). *Improving Impacts of Research Partnerships*. Bern: KFPE, 2004.

Swiss Commission for Research Partnerships with Developing Countries (KFPE). *Choosing the Right Projects: Designing Selection Processes for North-South Research Partnership Programmes*. Bern: KFPE, 2005.

Tanner, M., A. Kitua, and A. Degremont. "Developing Health Research Capability in Tanzania: From a Swiss Tropical Institute Field Laboratory to the Ifakara Centre of the Tanzanian National Institute of Medical Research." *Acta Tropica* 57 (1994).

Tilak, J. "Knowledge Development and International Aid." in *Development Knowledge, National Research and International Cooperation*. Edited by W. Gmelin, K. King and S. McGrath. Edinburgh: CAS/DSE/NORRAG, 2001.

This article examines the implications of the "knowledge society" and "knowledge-based development" for developing societies and in particular for aid organizations, focusing on aid for education from a "knowledge-based" approach. International research cooperation can take various forms, including (i) research by international organizations; (ii) funding of research to be conducted by Southern researchers and organizations; and (iii) collaborative research. Tilak

argues that while type (ii) is important for institutional development and institutionalizing knowledge for development, the third type that is most critical in terms of producing knowledge as an international public good. Tilak reviews some of the undesirable effects that can be produced by poorly conceived international cooperative research on education, including the sidelining of local and long-term research agendas, and the devaluation of domestic research in general. In spite of these risks, Tilak maintains that international organizations can play a critical positive role in supporting developing countries in their effort to build strong and sustainable knowledge bases, with developing country governments focusing on knowledge development, and international organizations assisting with knowledge management.

Townsend, D. "North-South Research Partnerships, Rapid Response." *British Medical Journal* (1999).

Trostle, J. "Research Capacity Building in International Health: Definitions, Evaluations and Strategies for Success." *Social Science Medicine* 35 (1992).

Trostle, J., and J. Simon. "Building Applied Health Research Capacity in Less-Developed Countries: Problems Encountered by the ADDR Project." *Social Science Medicine* 35 (1992).

UNDP. *Human Development Report 2001: Making New Technologies Work for Human Development*. Oxford: Oxford University Press, 2001.

Van de Sande, T. "Priority Setting in Research for Development: A Donor's Perspective" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

Van de Sande's chapter adds to the notable collection of literature on the Dutch approach to supporting development research, including through North-South research partnerships. Van de Sande tracks the evolution of the Dutch approach, starting from the 1992 establishment of a Research Unit in the DGIS to enact a new policy designed to bolster Southern research capacity through demand-driven research agendas. The over-arching aim of the Dutch policy was the enable Southern researchers to advance Southern research agendas through practical studies that focus on the priorities of poor communities. In particular, Van de Sande highlights the Netherlands' experiences with funding Multi-annual Multi-disciplinary Research Programs (MMRPs), arguing that the MMRP model was successful in terms of drawing on local research capacities, supporting local priorities, and strengthening the utility of research by utilizing the demand-led approach. Van de Sande also profiles DGIS-supported research programs that feature collaborative decision-making between Southern and Northern researchers. The author argues that "there is a broad consensus about the importance of supporting and utilizing local researchers and local research capacity to address local research agendas." Rather than a general, global

research agenda, Van de Sande maintains that a great variety of local research agendas are required in order to respond to specific local priorities.

Velho, Lea. "North-South Collaboration and Systems of Innovation." *International Journal of Technology Management & Sustainable Development* 1, no. 3 (2002).

Velho, L. "Research for Development in the South: Regional Report for Latin America and the Caribbean-Background Paper Commissioned by IDRC in Preparation for its Corporate Strategy and Program Framework 2005-2010". Ottawa: IDRC, 2003.

Waardenburg, J. G. *Research, Developing Countries (DCs) and EU-DC Research Cooperation, Background Note for European Conference on Research Partnerships for Sustainable Development, Leiden, 11-13 March 1997*. Leiden: EU, 1997.

Wagner, C. "International Collaboration in Science and Technology: Promises and Pitfalls" in *Science and Technology Policy for Development: Dialogues at the Interface*. Edited by L. Box, R. Engelhard. London: Anthem Press, 2006.

Wagner suggests that international networks of science and technology researchers present valuable opportunities for Southern countries to acquire knowledge to advance local development. However, there is a lack of guidelines on managing networked research systems. This raises significant obstacles for researchers looking to join international networks. In this chapter, Wagner explicates the dynamics of international collaboration in science and technology, and sets out a framework to guide decision-makers seeking to maximize the development opportunities associated with research cooperation.

Wagner, C. "Science and Foreign Policy: The Elusive Partnership." *Science and Public Policy* 29, no. 6 (2002).

Wagner, C., I. Brahmakulam, B. Jackson, A. Wong, and T. Yoda. *Science and Technology Collaboration: Building Capacity in Developing Countries?*. Santa Monica: RAND, 2001.

Wagner, C., and L. Leydesdorff. "Mapping the Network of Global Science: Comparing International Co-Authorships from 1990 to 2000." *International Journal of Technology and Globalization* 1, no. 2 (2005).

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