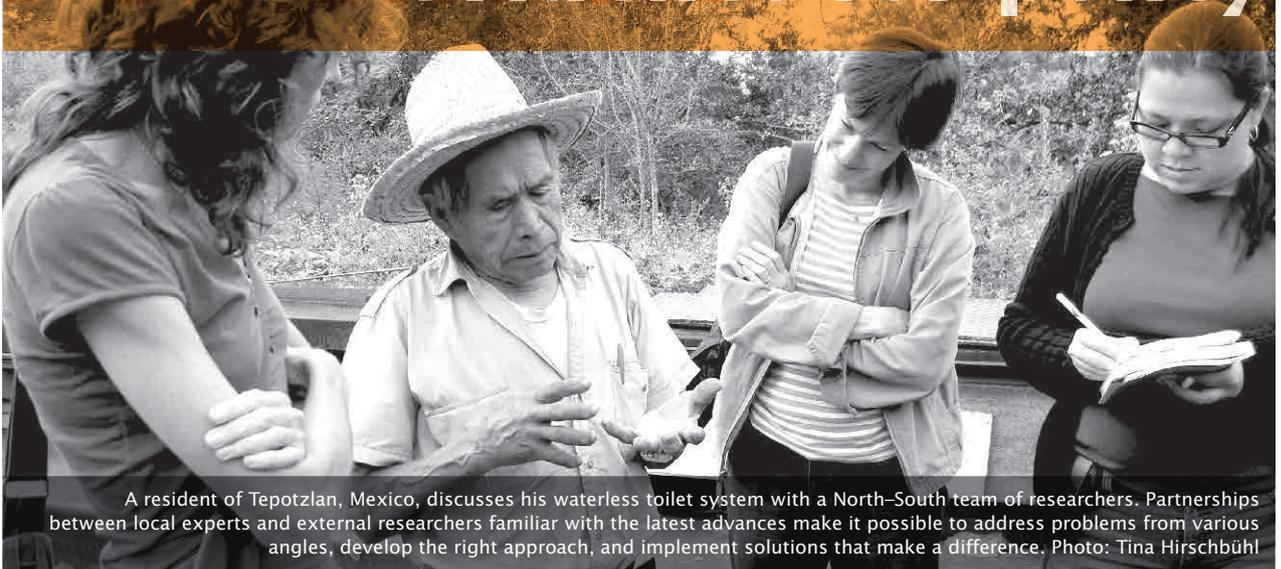


research evidence for policy



A resident of Tepotzlan, Mexico, discusses his waterless toilet system with a North–South team of researchers. Partnerships between local experts and external researchers familiar with the latest advances make it possible to address problems from various angles, develop the right approach, and implement solutions that make a difference. Photo: Tina Hirschsühli

Research partnerships: the benefits of North–South collaboration

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Case studies featured here were conducted in: Vietnam, Laos, and Bolivia

Policy message

- Global research partnerships enable Northern and Southern researchers to pool their resources and to benefit from knowledge of diverse settings.
- Collaboration with Northern institutions enables developing countries to strengthen their research capacity and refine their policies to fight poverty.
- Partnerships are ideal for addressing complex international challenges such as poverty, climate change, or migration.
- Northern researchers cannot conduct meaningful research on global change issues without Southern partners. Networking with researchers from areas where problems are acutely experienced enables a comprehensive and grounded perspective of development challenges.

- Partnerships between Northern and Southern researchers are a powerful tool for studying problems of global change and for shaping development policies. North–South partnerships enable teams of researchers to focus on specific problems and to strengthen research capacities in developing countries. They also enable Southern researchers to contribute to their home countries as part of an international network. This issue of *evidence for policy* draws on recent publications from the NCCR North–South to illustrate how partnership benefits science and sustainable development.

Knowledge is key to development

- Societies today are highly dependent on knowledge. Both rich and poor nations require scientific knowledge to address current problems and anticipate future changes. Mitigating the effects of climate change is an obvious example of this: developed countries must find ways of reducing their output of greenhouse gases while developing countries must identify strategies to adapt to rising temperatures. Another example is the challenge of regulating international migration: while developing countries often suffer from the outmigration of skilled workers, developed countries have to deal with the social and other

consequences of immigration. As innovative solutions are required, enhancing research capacities is a central concern for governments and international development agencies alike.

Research partnerships

Research partnerships between universities and research institutions in developed and developing countries are a relatively rare but very promising way of generating mutually beneficial knowledge. In a research partnership, various institutions agree to work together to study a particular set of issues. It may involve just two institutions that agree to conduct joint research in a single country, or may include many institutions in several countries. They sometimes focus

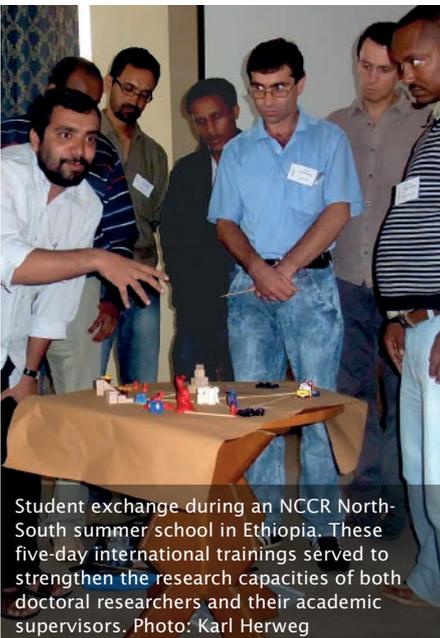
Featured case studies

Evidence-based poverty alleviation in Vietnam and Laos

NCCR North-South research in Vietnam and Laos that addressed poverty and inequality provided the first reliable data on the spatial distribution of poverty in the region. It found that although the remote uplands are the poorest areas, most poor people in fact live in the better-off, more accessible lowlands. This finding had a major influence on the poverty alleviation programmes of development agencies such as the World Bank. (See: www.decide.la)

Improving risk management in Bolivia

In Bolivia, rural and urban communities in both mountainous regions and the lowlands face risks of various natural disasters: earthquakes, landslides, floods, etc. Although high-level risk-management laws already exist, actual implementation of risk management has been lacking at the local level. A partnership between researchers, NGOs, and neighbourhood organisations created a toolbox for risk management and implemented it in several parts of the country. The project partners identified vulnerability maps as being essential to managing risks in a sustainable way. As a consequence, NCCR North-South researchers worked with the Vice-ministry of Civil Defence to compile an atlas of threats, vulnerabilities, and risks covering the whole country. (See: www.north-south.unibe.ch/content.php/page/id/315)



Student exchange during an NCCR North-South summer school in Ethiopia. These five-day international trainings served to strengthen the research capacities of both doctoral researchers and their academic supervisors. Photo: Karl Herweg

- on a single academic discipline (such as geography or economics) or comprise various disciplines. Activities include joint research, staff and student exchanges, training, networking, conferences, publishing, and policy advocacy.

- Switzerland has a wealth of experience in research partnerships. The Swiss Commission for Research Partnerships with Developing Countries (KFPE) has worked in this field for nearly two decades, recently publishing its updated “11 Principles” for transboundary and intercultural research partnerships (see box, next page).

- KFPE was also instrumental in laying the groundwork for the Swiss National Centre of Competence in Research (NCCR) North-South, a 12-year research partnership programme which formally concluded in June 2013. The NCCR North-South involved major research institutions in Switzerland and more than 40 countries in the developing world. With over 350 researchers in fields ranging from epidemiology and sanitation to livelihood studies, and from natural resource management to peace studies, the network developed practical solutions to specific problems.

Finding solutions for development problems

- Research partnerships can enhance the effectiveness of development aid. This happened for example in Vietnam and Laos, where NCCR North-South studies revealed surprising aspects of the spatial distribution of poor people and led to a redirection of donor-funded poverty alleviation programmes. Another example of researchers successfully working with policymakers occurred in Bolivia: NCCR North-South members collaborated with the Vice-ministry of Civil Defence to establish a country-wide atlas on risks in order to better protect local communities against landslides, floods, and other types of natural disasters (see “Featured case studies”, this page).

- NCCR North-South research has been incorporated into the policies and practices of countries throughout the developing world. Southern scientists who have benefited from the partnerships provide valuable expertise and

networking services to governments, donor agencies, and development organisations in their home countries. They frequently advise and train national ministries and local communities (Michel et al 2010).

Despite their many benefits, such research partnerships are comparatively underfunded. In Switzerland, the Swiss National Science Foundation (SNSF), the most important local agency for promoting research, allocated less than 1% of the total research budget to partnerships with the global South between 2008 and 2011 – so there is plenty of scope for expansion.

Improving Southern research

According to a recent UNESCO Science Report, only 1.7% of the world’s GDP is devoted to research and development. But this overall figure conceals huge regional and country-level differences. For example, more than 77% of recent research and development expenditures were made in developed countries (for the year 2007), while developing and transition countries – comprising almost 70% of the world population – accounted for less than 23% (Figure 1, next page). It should be noted, however, that so-called transition countries are rapidly expanding their investments in research: of the 23% noted above, just over half came from transition countries (mainly China, but also India and Brazil). Nevertheless, on the whole, the current numbers indicate that researchers in poor Southern countries still have relatively few resources to tackle the many problems facing their populations, and few opportunities to publicise their relevant research findings.

The NCCR North-South tried to redress this imbalance. By publishing over 2,300 scientific papers, including many from scientists in very poor countries such as Chad, Ethiopia, Laos, Mali, and Nepal, the NCCR North-South put a strong emphasis on encouraging scientific publication on the part of Southern researchers. In addition, three recent books highlight the experience of research partnership and its impacts in the South. Most chapters were written by North-South teams of researchers, strengthening the capacity of scientists on all sides (see “Further reading”, last page).

Overcoming brain drain

Strong higher education and research systems are vital for developing countries to address their economic, social, and ecological challenges. But lacking suitable opportunities at home, skilled Southern experts are often forced to conduct research and seek employment abroad. Policymakers in countries without established research structures often feel powerless against the outmigration of the highly skilled scientific elite.

Research partnerships may help keep such researchers at home, or encourage them to return, as Southern scientists can continue to receive support from, and advance their careers in, established research networks while contributing to their home countries' development. Growth of "virtual" online platforms for collaboration could support this positive trend.

A survey of former NCCR North-South doctoral students found that 91% were employed in their home countries after completing their studies: only four out of 44 Southern researchers from the programme had relocated to a Northern university; most continued their career in universities and research institutions in the South (Heim et al 2012).

Collaboration for global change

Research partnerships also benefit Northern scientists in a variety of ways, including:

- They give them a comprehensive, yet grounded view of global change by connecting them with diverse settings where development problems are keenly felt.
- They link developing country experts on local issues with Northern researchers who are familiar with the latest theories and methods. This combination enables the partners to jointly examine these problems rigorously, develop research approaches, and identify robust solutions.
- Northern researchers gain better access to local communities and national policymakers in the South, enhancing their credibility when communicating with policymakers in the North.

Indeed, research on complex, multi-local challenges such as global change and sustainable development should always be conducted in partnership.

Partnerships vs. ad hoc arrangements

Sustained partnerships have several advantages over short-term, ad hoc joint research.

- They make it possible to build research relationships rooted in trust and mutually beneficial exchange between institutions and individuals.
- These relationships can be multi-faceted: they can encompass joint research and publishing, staff exchanges, student placements, exchange visits, and facilitation of conferences. The richness of these relationships enables closer collaboration and more effective work.
- Their inherent stability enables greater impacts.
- They can bridge (often artificially divided) academic disciplines, enabling more complex problems to be tackled and a greater range of expertise to be brought to bear.
- They can involve multiple partners in several countries (like the NCCR North-South programme). Such arrangements enable researchers in several countries to learn from one another and solve problems jointly.

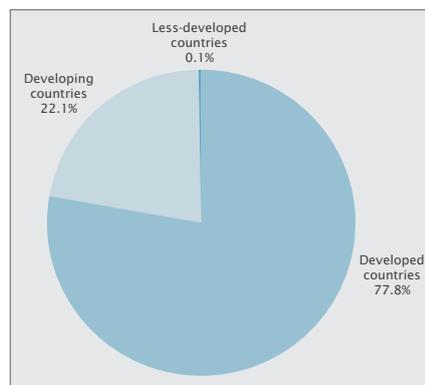


Figure 1: World shares of expenditure on research and development, 2007. Source: UNESCO Science Report 2010 [page 7] (See: <http://unesdoc.unesco.org/images/0018/001899/189958e.pdf>)

Definition

Transdisciplinary research

Transdisciplinary research is research that is conducted in cooperation with academic and non-academic stakeholders – farmers, local leaders, parliamentarians, etc. – at each stage in the research process, from problem definition to formulation of recommendations. Transdisciplinary research not only produces knowledge on how to solve a problem, but also on how to approach it.

(See: www.transdisciplinarity.ch)

Principles for transboundary research partnerships

Research partnerships between researchers from developed and developing countries are likely to be successful when they follow shared principles. Switzerland's KFPE has published an updated set of its 11 Principles here: www.kfpe.ch/11-Principles

In sum, they are:

- Set the agenda together
- Interact with stakeholders
- Clarify responsibilities
- Be accountable to beneficiaries
- Promote mutual learning
- Enhance capacities
- Share data and networks
- Disseminate results
- Pool profits and merits
- Apply results
- Secure outcomes



In Chad, Southern and Northern researchers organised stakeholder workshops bringing together local pastoralists and government representatives to validate research results, identify interventions, and discuss outcomes. Photo: Jakob Zinsstag



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Policy implications of NCCR North-South research

Partnerships support evidence-based policies

Research partnerships are an ideal way for international donor agencies to generate policy-relevant knowledge for development. They enable teams of researchers from both developing and developed countries to collaborate with local people, development staff, and policymakers to identify solutions to pressing problems facing developing countries.

Partnerships improve research capacities in developing countries (and in the North)

The exchange of experience between Northern and Southern researchers builds the expertise of both groups. As part of a team, Southern researchers are more likely to be able to publish their scientific results in renowned journals and to fulfil other international standards of research excellence.

Partnerships are an excellent way to fund research on global issues

Complex, internationally relevant challenges such as global change and sustainable development are best studied in North-South partnerships. Sustained partnership networks are more capable of applying shared principles of transboundary research compared with short-term ad hoc partnerships.

Further reading

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Tracking Alumni Career Paths: Third NCCR North-South Report on Effectiveness. NCCR North-South Dialogue 42. Bern, Switzerland: NCCR North-South.

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The National Centre of Competence in Research (NCCR) North-South is a worldwide research network including six partner institutions in Switzerland and some 140 universities, research institutions, and development organisations in Africa, Asia, Latin America, and Europe. Approximately 350 researchers worldwide contribute to the activities of the NCCR North-South.

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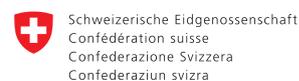
This issue

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evidence for policy

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