



# Research for Sustainable Development

**Foundations, Experiences, and  
Perspectives**

Edited by  
Urs Wiesmann and Hans Hurni  
with an international group of co-editors

*perspectives*  
Volume 6

# **Research for Sustainable Development: Foundations, Experiences, and Perspectives**



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Edited by  
Urs Wiesmann and Hans Hurni  
with an international group of co-editors

NCCR North-South  
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Building a bamboo bridge across the Nam Khan river, near Luang Prabang (Lao PDR). Seemingly tenuous bridges can be powerful links between shores otherwise far apart: they are small and efficient, use adapted local technologies, serve the purpose of rapid connection, and can be rebuilt after floods. (Photo by Thomas Breu, November 2011)

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## Foreword

Sustainable development remains an important global vision. This reveals a general conviction that global change and dynamics should not just result in uncontrolled and uncontrollable development, but that development should be goal-oriented. In this context, sustainable development aims to establish a balance between economic, sociocultural, and ecological goals, and strives for intra- and intergenerational equity in a globalising world.

However, although sustainable development has been at the top of global and national agendas for at least two decades, concrete progress remains scanty. Among the societal reasons for this limited success are: lack of concretisation of targets attached to the value dimensions of sustainability; the higher temporal sensitivity of economic by comparison with sociocultural and especially ecological indicators, giving economic values more weight; and economic and political power disparities that lead to power-driven value definitions, with a tendency to neglect the values and visions of the populations concerned in concrete contexts.

At the same time, societal and scientific knowledge production has not succeeded in fully matching the vision of sustainable development. Due to their rather one-sided quantitative and disciplinary-driven reference system, science and research have provided many important sectoral insights and approaches, but they have largely missed out on (1) *contextualisation and concretisation of knowledge and explicit linking of knowledge production to societal values*, and (2) *conceptual integration and mainstreaming of the requirements of sustainable development*. These two aspects remain major challenges of research for sustainable development and require that sound disciplinary and interdisciplinary research be complemented with transdisciplinary approaches in contextually rooted, intercultural research partnerships.

The ongoing Swiss National Centre of Competence in Research (NCCR) North-South programme focusing on “Research Partnerships for Mitigating Syndromes of Global Change” has provided a unique opportunity to contribute to addressing the above two challenges of research for sustainable development. This opportunity has depended on three major factors: the long-term perspective of the NCCR Programme from mid-2001 to mid-2013; joint and coordinated support from a research foundation – the Swiss National Science Foundation (SNSF) – and a development agency – the Swiss Agency for Development and Cooperation (SDC); and well-established inter- and transdisciplinary research partnerships in nine regions worldwide.

In a previous volume of this series (Hurni et al 2010) we presented a synthesis of the achievements of the NCCR North-South with regard to the first challenge mentioned above: contextualisation and concretisation. In the current volume, we present progress achieved with regard to the second challenge, that is, the *conceptualisation and operationalisation of research for sustainable development*. This volume accounts for major progress in research approaches and their application, as achieved by the programme as a whole, as well as by the participating interdisciplinary and partnership-based research groups. These achievements are presented in five parts:

**Part I: Foundations of research for sustainable development (2 articles):**

Reflections on the link between global change in its broadest sense and the concept of sustainable development form the basis for conceptualising related research, and for justifying and clarifying the importance of transdisciplinarity, contextuality, and research partnerships.

**Part II: Concepts of research for sustainable development (8 articles):**

Important specific challenges of research for sustainable development are addressed in greater detail in this section. The articles present considerations on and experiences with how to deal in concrete ways with: intercultural research partnerships and related capacity development; the quest for collaborative knowledge production at the interface between science and society; and giving the gender dimension adequate weight. Some articles also reflect on the links between participation, policy transformation, and governance – which are necessary requirements for an iterative, value-conscious, and societally relevant research approach.

**Part III: Actor perspectives in research for sustainable development (6 articles):**

Actors at multiple levels are agents of change and define the value dimension of sustainable development. Conceptualising “actors” in research is therefore crucial. Starting from a broad concept of actors, this section critically reviews and concretises livelihood concepts in development research and research on multilayered resilience; further articles examine the specific dimensions of gender, livelihood assets, and multi-locality.

**Part IV: Tools in research for sustainable development (4 articles):**

Modern information technologies (ITs) have greatly increased the availability and spatio-temporal resolution of information. However, how can this information be transformed into shared knowledge in concrete research approaches aiming for more sustainable development? This section presents

experiences with and tools for dealing with this challenge, and is complemented by a framework for analysing policy processes and governance.

**Part V: Thematic foci in research for sustainable development (9 articles):** In concrete development efforts, commissioning agencies and societies concerned usually do not ask for research on sustainable development as an overall goal, but for research linked to specific sustainability issues. Starting with insights into a wide range of such issues – ranging from land management to environmental conflicts, nature conservation, commodities, growth and poverty, pastoralism and urbanism, human security, and equity effectiveness in health interventions – this final section illustrates how thematic foci can be embedded into the broader perspective of research for sustainable development.

By collating these different perspectives on research for sustainable development, we hope to contribute to the sustainable development debate from a number of angles, and to further development of concepts and approaches in this field of research. In particular, we hope to contribute to overcoming the deadlock in research for sustainable development, which seems to focus either on global principles and perspectives, or on concrete realities and societal values in specific contexts, without being able to link the two foci. Based on our experience in the past 10 years of research in partnership, we are convinced that integrative research efforts can also trigger innovation in the participating scientific disciplines and thus contribute to science as a whole. This is a secondary effect alongside the ultimate goal of the NCCR North-South, which is to contribute in concrete ways to more sustainable development both in societal debates and in concrete, situation-specific efforts.

Urs Wiesmann and Hans Hurni (editors)

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The Swiss National Centre of Competence in Research (NCCR) North-South programme was established in 2001. It has been a unique opportunity to increase the concrete development impact of research. In addition, as presented in this volume, the programme has also enabled a significant number of research partners to experiment with, reflect on, and develop approaches, concepts, and methodologies with a view to enhancing the relevance and usefulness of research for sustainable development. This unique chance was made possible by the joint effort of our donors from the research (the Swiss National Science Foundation [SNSF]), development (the Swiss Agency for Development and Cooperation [SDC]), and academic communities (the seven NCCR North-South partner institutions in Switzerland, with the lead institution at the University of Bern). We would like to thank them for their bold and continual support of our interdisciplinary and intercultural programme, as well as for their guidance offered through the jointly established Review Panel.

This book presents articles authored by a total of 87 researchers from 19 countries. Over the years, however, many more people have been involved in this international partnership programme and have contributed to the approaches and results presented here; it is impossible to name them all. In addition, a wide range of scholars from the broad institutional network of the NCCR North-South reviewed the articles in this book and made invaluable comments. The Editors would like to express their deep gratitude to all the researchers and institutions involved in the NCCR North-South programme and to all authors for their contributions to pertinent issues of research for sustainable development.

Finally, the Editors wish to thank three groups of people who initiated, coordinated, and produced this volume: first, the core group of NCCR North-South colleagues who, together with the Editors, have led the conceptual reflections resulting in this book on research for sustainable development: Urs Geiser, Andreas Heinimann, Cordula Ott, Didier Péclard, Stephan Rist, and Claudia Zingerli. Second, Ruth Schaffner, who coordinated the synthesis project and the internal peer-review process; and Thomas Breu, Programme Coordinator, who managed the project in the background. Finally, members of the production team: Anne Zimmermann (editing and coordination of the Perspectives series), Marlène Thibault

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Sustainable development remains an important global vision in a rapidly changing and globalising world. Realising this vision requires knowledge-based and value-conscious social, political, and economic decisions and actions at multiple levels. Research aiming to support sustainable development faces challenges that go beyond the traditional roles of discipline-oriented science. This means that knowledge must be co-produced at the interfaces between a broad range of disciplines, between science and society, between knowledge cultures in the global North, South, and East, and between global visions and local realities – while remaining rooted in solid disciplinary foundations.

*Research for Sustainable Development* presents 29 articles mostly authored by interdisciplinary teams. Based on the experiences of a decade of inter- and transdisciplinary research in partnership conducted in nine regions of the world, some authors reflect on the foundations of sustainability-oriented research; others propose and illustrate concrete concepts, tools, and approaches to overcome the challenges of such research; and further authors focus on specific issues of sustainable development – ranging from land management to environmental conflicts, nature conservation, commodities, growth and poverty, pastoralism and urbanism, human security, and equity effectiveness in health interventions – and show how research practice has led to new thematic and methodological insights. This book thus seeks to stimulate the advancement of research towards more relevant, scientifically sound, and concrete contributions to realising the vision of sustainable development.