

Edited by Anja Christinck and Martina Padmanabhan

Cultivate Diversity!

A HANDBOOK ON TRANSDISCIPLINARY
APPROACHES TO AGROBIO DIVERSITY RESEARCH



Contents

Boxes, Figures and Tables Foreword Preface of the Editors		M. S. Swaminathan A. Christinck and M. Padmanabhan	6 8 9
Why inter- and transdisciplinary research for agrobiodiversity?	1	By M. Padmanabhan, A. Christinck and H. Arpke	11
Developing a joint understanding of agrobiodiversity and land-use change	2	By N. Nagabhatla and N. P. A. Kumar	27
Agricultural biodiversity conservation and food security for small-scale farmers	3	By P. Chaudhary and B. Sthapit	53
Agrobiodiversity and equity: Addressing gender in transdisciplinary research	4	By J. H. Momsen, I. Kunze and E. Oakley	71
Adding value to research through partnerships: Interdisciplinary and intercultural diversity in agrobiodiversity research	5	By S. Werner, M. Padmanabhan and A. Christinck	93
From assessing knowledge to joint learning	6	By B. Kaufmann, H. Arpke and A. Christinck	115
Legal and ethical aspects of sharing knowledge	7	By A. Höing, A. Christinck and M. Padmanabhan	143
Tropical farms as social-ecological systems - tools for assessment	8	By S. Purushothaman, R. Abraham and S. Patil	163
Conserving agrobiodiversity on small- scale farms in developing countries through innovative market-based instruments	9	By T. Stellmacher, A. Faße, J. Garcia-Yi and U. Grote	185
Policy dialogue beyond recommendations	10	By M. Padmanabhan	201
Outlook: From Science Policy to Transdisciplinary Research	1	By M. Padmanabhan, J. Lohmann and D. Nill	219
Acknowledgements			234
Contributors References			235
Photo Acknowledgements			241 256



Why inter- and transdisciplinary research for agrobiodiversity?

By Martina Padmanabhan, Anja Christinck and Hannah Arpke

Agrobiodiversity is simultaneously a natural resource and a cultural asset. Its evolution has been closely linked to the rich diversity of human social, cultural and economic activities under specific environmental conditions. In order to continue developing and cultivating this diversity, and to stop its rapid loss, we argue for a transdisciplinary approach to agrobiodiversity research: combining the varied expertise of women and men, farmers, scientists, practitioners and policy-makers alike will change and enhance our understanding and options for action fundamentally.



Developing a joint understanding of agrobiodiversity and land-use change

By Nidhi Nagabhatla and Anil Kumar

Agriculture is both creating and destroying agrobiodiversity. Understanding this ambiguity requires looking into the causes and driving factors for agrobiodiversity loss or enhancement on farm, among which land-use change is one issue quite difficult to conceive. Land-use change is in itself driven by complex dynamics and processes taking place on various spatial and temporal scales. Geospatial tools can be helpful for describing such dynamics and their importance for agrobiodiversity loss, thus creating common grounds for discussions among stakeholders operating at various levels.



Adding value to research through partnerships: Interdisciplinary and intercultural diversity in agrobiodiversity research

By Silvia Werner, Martina Padmanabhan and Anja Christinck

Social and cultural diversity is highly topical, in commercial and research organizations alike. It aims at creating equal opportunities for people belonging to various social groups, but this also provides additional chances for developing knowledge and skills, for both individuals and teams. But what are practical ways and methods for tapping these potentials in research teams? In this chapter, we suggest approaches for integrating diverse peoples' knowledge and skills for a fruitful collaboration and more relevant research results.



Policy dialogue beyond recommendations

By Martina Padmanabhan

Transdisciplinary agrobiodiversity research aims at providing transformation knowledge to enable stakeholders to progress more efficiently towards sustainable and gender equitable management and use of agrobiodiversity. In order to lead a policy dialogue beyond mere recommendations, transdisciplinary research needs to engage from a very early stage with stakeholders involved in policy-making. Thus the challenge to be addressed is how to establish a meaningful form of dialogue at the science-policy interface from the inception of the research.



Outlook: From Science Policy to Transdisciplinary Research

By Martina Padmanabhan, Jörg Lohmann and Dieter Nill

Research aiming at sustainable development solutions is most often funded by public money and thus should serve the greater common good. The funding institutions have the liberty to create incentives and structures accordingly, by setting criteria for the eligibility of proposals and establishing funding and evaluation procedures. These measures should be re-considered to ensure that they adequately match the challenge of transdisciplinary research, and bring together scientists and practitioners from diverse disciplines to ensure that societal and development goals are addressed.