
DEVELOPMENT ECONOMICS AND POLICY

Series edited by Franz Heidhues, Joachim von Braun and Manfred Zeller

66

The Economics of Land Degradation Toward an Integrated Global Assessment

Ephraim Nkonya / Nicolas Gerber /
Philipp Baumgartner / Joachim von Braun /
Alessandro De Pinto / Valerie Graw /
Edward Kato / Julia Kloos / Teresa Walter

PETER LANG

Internationaler Verlag der Wissenschaften

Contents

Acknowledgments	V
Executive Summary	XV
1. Introduction	1
1.1 Background and Choice of Approach	1
1.2 Terrestrial Ecosystem Services	3
1.3 Objectives	4
1.4 Conceptual Framework	5
2. Assessment of Land Degradation	15
2.1 Land Degradation	15
2.2 Types of Land Degradation	57
2.3 Causes of Land Degradation	59
2.4 Associations between Potential Drivers of Land Degradation	71
2.5 Effects of Land Degradation	80
2.6 Summary	84
3. Economics of LD	89
3.1 Theoretical Framework for the Economic Valuation of LD Impacts	92
3.2 Economic Valuation of Nature and Its Services—A Review	101
3.3 Summary	119
4. Actors, Incentives, and Institutions Governing Land Management	123
4.1 Roles and Levels of Institutions Governing Behavior	124
4.2 Type of Actors Involved in Land Management	126
4.3 Institutions for Land Management: What Matters, Why, and How to Improve?	128
4.4 Summary	133
5. Actions for Improvements	135
5.1 Soil Erosion	135
5.2 Salinity	139
5.3 Compaction	140
5.4 Loss of Biodiversity	140
5.5 Overgrazing	142
5.6 Addressing water shortage	144
6.7 Summary	146
6. Case Studies	149
6.1 Introduction	149
6.2 Uzbekistan	150
6.3 Niger	155

6.4 Peru	161
6.5 India	165
6.6 Kenya	169
6.7 Assessment of Forest Ecosystem Goods and Services	173
7. Partnership Concept	175
7.1 An Institutional Setup for the Global Assessment of ELD	175
7.2 Processes and Approaches for the Scientific Assessment of ELD	178
7.3 Which Type of Capacity Must Be Represented in the Scientific Body?	180
8. Conclusions	193
Appendix A: Supplementary Tables	199
Appendix B: Supplementary Figures	214
Abbreviations and Acronyms	219
References	223