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Nota di contenuto	Vulnerability of Land Systems in Asia; Contents; Editors' Introductions; List of Contributors; Preface; 1 Land Systems Vulnerability; 1.1 Introduction; 1.2 Overview of the book; Acknowledgements; References; I Hazards and Vulnerability; 2 Drought and Extreme Climate Stress on Human-Environment Systems in the Gobi Desert Mongolia; 2.1 Introduction; 2.1.1 Social ecological systems; 2.1.2 Mongolian rangelands; 2.2 Methods; 2.2.1 Study area; 2.2.2 Methodology; 2.3 Results; 2.3.1 Spatial continuity of droughts; 2.3.2 Dzd of 1999-2001; 2.3.3 Dzd and drought: non-drought years; 2.4 Discussion 2.4.1 Resilience 2.5 Conclusion; Acknowledgements; References; 3 Vulnerability and Resilience of the Mongolian Pastoral Social-Ecological Systems to Multiple Stressors; 3.1 Introduction; 3.2 The current situation; 3.2.1 Climate conditions; 3.2.2 Water resources; 3.2.3 The nomadic system; 3.2.4 Livestock changes; 3.3 Analysis of vulnerability of critical ecosystem services; 3.3.1 Vulnerability index of pastoral systems; 3.3.2 Integrated zud index; 3.3.3 Rangeland use index; 3.3.4

Assessment of rangeland vulnerability to climate and land-use changes; 3.4 Coping scenarios  
3.5 Summary and conclusion  
3.5.1 A win-win model;  
Acknowledgements; References; 4 Vulnerability of Pastoral Communities in Central Mongolia to Climate and Land-Use Changes; 4.1 Introduction; 4.2 Study sites and methodology; 4.3 Research results; 4.4 The results of a social survey related to the 'dryland development paradigm'; 4.5 Pastoral social-ecological scenarios; 4.6 Policy-related social survey; 4.7 Discussion; 4.8 Conclusion; Acknowledgements; References; 5 Vulnerability Assessment Diagram: A Case Study on Drought in Middle Inner Mongolia, China; 5.1 Introduction  
5.2 An integrated diagram for vulnerability assessment: the VSD model  
5.3 Case study using the VSD model; 5.3.1 The study area; 5.3.2 Vulnerability profile at the county level; 5.4 Results and discussion; 5.4.1 Relative impact of the components on the vulnerability index; 5.4.2 Model calibration; 5.5 Conclusion; References; 6 Vulnerability of Agriculture to Climate Change in Arid Regions: a Case Study of Western Rajasthan, India; 6.1 Introduction; 6.2 Climate change scenarios: global, national and local levels; 6.3 Study area; 6.4 Research methodology; 6.5 Results and discussions  
6.5.1 Climate variability  
6.5.2 Vulnerability assessment; 6.5.3 Vulnerability; 6.6 Conclusion; References; 7 Dendrogeomorphological and Sedimentological Analysis of Debris Flow Hazards in the Northern Zailiiskiy Alatau, Tien Shan Mountains, Kazakhstan; 7.1 Introduction; 7.2 Study area; 7.3 Methods and materials; 7.3.1 Geomorphology and sedimentology; 7.3.2 Archive datasets; 7.3.3 Dendrogeomorphology; 7.3.4 Cross-dating, reference series identification and skeleton plotting; 7.3.5 Seedling establishment, growth rates below coring height and earthquakes; 7.4 Results  
7.4.1 Growth rate and establishment periods

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## Sommario/riassunto

This book provides a comprehensive yet accessible overview of land systems vulnerability assessment in Asia - fundamental to the understanding of the link between global change, environmental sustainability and human wellbeing. The extent and intensity of human interactions with the environment have increased spectacularly since the Industrial Revolution. Thus, the global change research community and development practitioners increasingly recognize the need to address the adverse consequences of changes taking place in the structure and function of the biosphere and the implications for socie

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