Patterns of Land Degradation in Drylands

Eva Nora Mueller • John Wainwright
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Editors

Patterns of Land Degradation in Drylands

Understanding Self-Organised
Ecogeomorphic Systems

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ISBN 978-94-007-5726-4

ISBN 978-94-007-5727-1 (eBook)

DOI 10.1007/978-94-007-5727-1

Springer Dordrecht Heidelberg New York London

Library of Congress Control Number: 2013943458

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Printed on acid-free paper

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Preface

This book was initiated through an interdisciplinary ESF Exploratory Workshop – ‘Self-organized ecogeomorphic systems: confronting models with data for land degradation in drylands’ – which was held in Potsdam, Germany, on 7–10 June 2010. The workshop brought together for the first time European scientists working in drylands from multiple communities covering the fields of ecology and landscape ecology, geomorphology, hydrology, agronomy, Earth observation and mathematics to discuss their definitions of land degradation, empirical approaches, questions of corresponding spatial and temporal scales, the importance of self-organization and the application of existing modelling approaches.

During the meeting it became clear that there was a fundamental lack of common ground regarding concepts and methodological approaches between the disciplines. To address this deficiency in understanding land degradation and to provide a basis for future interdisciplinary research on ecogeomorphic systems, we harnessed the expertise of this interdisciplinary group to create this keystone manual.

Individual chapters are multi-authored, integrating research and perspectives from the workshop’s participants and several invited experts. As opposed to the usual approach to producing an edited book, we took an editorial decision to select themes that emerged from the workshop and subsequent discussions and invite authors to make short contributions on those themes. We then individually and together integrated the materials produced in order to ensure the consistency and coherence of the chapters. The ordering of the authors names is according to the size of their contribution to the chapters. We would like to thank all the contributors for their full co-operation on the less than usual approach in pulling together this volume in the format we decided on.

The editors would like to thank the European Science Foundation funding scheme for fully supporting the exploratory workshop (Grant reference number EW09-011).

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