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Editorial

Soils form the basic substrate of terrestrial ecosystems, support many human activities and provide together with water a multitude of highly valuable ecosystem services. Desertification, Land Degradation and Drought (DLDD) resulting from various factors including climatic variations and human activities are the most threatening ecosystems' change impacting the livelihood of whole mankind and the poor in particular. More than 2 billion people live in arid, semi-arid and dry sub-humid areas, the so called drylands. The underlying biophysical and anthropogenic causes of land degradation are multiple and overlapping. Desertification can trigger a vicious circle of environmental degradation, impoverishment, hunger, migration and conflicts, putting the socio-political stability of the affected countries and regions at risk.

Considering DLDD as a slow-onset emerging natural and /or human induced disaster at the core of climate change, asks for an integrative approach to tackle the underlying risk factors. The process of soil formation is so slow that soil can be considered a nonrenewable resource. Toward 2050, rising population and incomes are expected to call for 70 percent more food production globally, and up to 100 percent more in developing countries, relative to 2009 levels. Thus, healthy soil is essential to the survival of humanity. Only an integrative and holistic approach, considering all phases of the risk cycle and integrating all stakeholders will lead to sustainable land management not only in drylands.

For efficient and effective prevention and mitigation measures against DLDD, it is essential to assess the economic and social impacts of DLDD and identify the most relevant actors such as land users, land owners, governmental authorities and industries. Further, it is necessary to analyse how institutions and policies influence those actors. The range of barriers such as insufficient financing and resourcing, weak scientific basis and knowledge exchange, insufficient advocacy and awareness, or an inadequate legal basis limit both the implementation and effectiveness of mitigation and prevention measures.

Despite the increasing impacts of DLDD, a global consensus on the increasing economic costs of inaction is missing. This makes the prioritization of measures to prevent or mitigate DLDD substantially more difficult using an economic argument. However, methods exist to do cost-benefit analysis for mitigation and prevention measures. Cost-benefit-analysis can be an adequate tool and powerful enough to help decision-makers objectively choose among different land use management strategies

and pursue effective and resilience building interventions.

In order to develop and implement evidence-based and scientifically sound methods for monitoring and assessing DLDD and their consequences, a holistic approach is of utmost importance. It is vital to build bridges between the many different disciplines, sectors and society as a whole, in order to develop and establish integrative solutions for a more sustainable future.

Providing a platform for the exchange of intersectorial experience and transdisciplinary knowledge is one of Planet@Risks' main goals. The papers in this Special Issue on Desertification present state-of-the-art research reports, case studies for good practices, scientific reports and working papers in the field of economic assessment of desertification, land degradation and drought (DLDD), of sustainable land management practices (SLM) of drylands, and of resilience building.

All papers in this Planet@Risk Special Issue on Desertification are based on presentations given during the United Nations Convention to Combat Desertification (UNCCD) 2nd Scientific Conference on "Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry subhumid areas", held 9-12 April 2013 in Bonn, Germany (<http://2sc.unccd.int/home/>). The Global Risk Forum GRF Davos, as lead institution selected by the Bureau of the Committee of Science and Technology, organized the UNCCD 2nd Scientific Conference.

This Special Issue shall provide guidance to governments and non-governmental actors alike, on why they should and how they can, together, reduce the impacts of DLDD and support affected countries and communities to improve land management practices for increased resilience and sustainability.

I would like to thank the Editorial Board members who secure the quality of the journal and the authors for their valuable work they share with us. I wish you a lot of new insights with this Planet@Risk Special Issue on Desertification!

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