



New findings and setting the research agenda for soil and water conservation for sustainable land management

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The session on soil and water conservation for sustainable land management provides insights into the current research producing viable measures for sustainable land management and enhancing the lands role as provider of ecosystem services. The insights into degradation processes are essential for designing and implementing feasible measures to mitigate against degradation of the land resource and adapt to the changing environment. Land degradation occurs due to multiple pressures on the land, such as population growth, land-use and land-cover changes, climate change and over exploitation of resources, often resulting in soil erosion due to water and wind, which occurs in many parts of the world.

Understanding the processes of soil erosion by wind and water and the social and economic constraints faced by farmers forms an essential component of integrated land development projects. Soil and water conservation measures are only viable and sustainable if local environmental and socio-economic conditions are taken into account and proper enabling conditions and policies can be achieved. Land degradation increasingly occurs because land use, and farming systems are subject to rapid environmental and socio-economic changes without implementation of appropriate soil and water conservation technologies. Land use and its management are thus inextricably bound up with development; farmers must adapt in order to sustain the quality of their, and their families, lives. In broader perspective, soil and water conservation is needed as regulating ecosystem service and as a tool to enhance food security and biodiversity. Since land degradation occurs in many parts of the world and threatens food production and environmental stability it affects those countries with poorer soils and resilience in the agriculture sector first. Often these are the least developed countries. Therefore the work from researchers from developing countries together with knowledge from other disciplines and places is essential if we are to develop viable measures and approaches to soil and water conservation across the globe.

In this paper we will provide an overview of the topics that are addressed in this session and give an overview of the current research in this field and using the insights we will aim to present a new research agenda oriented towards a significant impact in economic and environmental sustainability.