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Institute for Integrated Management of Material Fluxes and of Resources

**PRESS ANNOUNCEMENT**
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# New Book on Multifunctional Land Use to Manage Nexus of Environmental Resources

Environmental decline and deteriorating condition of environmental resources are endangering food and water security globally. In China, the world's largest afforestation and land restoration programme in decades are raising doubts about sustainability. In a new book published with Springer, UNU-FLORES presents the state-of-the-art in forest management and land use policy, with reference to the case of the Loess Plateau region in China.

**Dresden, 18 May 2017.** – Environmental decline and deteriorating condition of environmental resources are endangering food and water security globally. Deforestation can cause soil erosion while agricultural intensification could lead to water pollution and shortage. While nations across the globe are affected by these problems, the extent of the problem faced by decision makers in China is particularly severe.

China has implemented the world's largest afforestation and land restoration programme in decades. Yet, the consequences of these programmes have raised greater doubts about the sustainability of the environmental restoration projects. This has sparked an intense debate among scholars of environmental management about the apparent contradiction between investing in environmental restoration and the outcomes in terms of food and water security.

Based on the outcomes of a Sino-German funded project, this fundamental question is being explored in a newly published book *Multifunctional Land-Use Systems for Managing the Nexus of Environmental Resources* (Springer). ). Praised by Dr Luca Montanarella from the European Commission - Joint Research Centre Institute for Environment and Sustainability during a launch event on 18 May at the Dresden Nexus Conference 2017, the book is the outcome of a cooperation agreement signed by UNU-FLORES with the Institute of Forest Ecology, Environment and Protection of the Chinese Academy of Forestry (CAF), the Institute of Geographic Science and Natural Resources Research of the Chinese Academy of Sciences (CAS), as well as the Institute of Soil and Water Conservation of the CAS and the Ministry of Water Resources (MWR).

As part of efforts to cooperate in research, promote multifunctional land use, as well as the transfer of knowledge and identification of knowledge gaps with a focus on transdisciplinary understanding, researchers from participating institutes combined forces to produce a book publication that presents current research and knowledge on managing forests, grasslands, and agricultural ecosystems, suggesting an alternative approach to harmonise sustainable natural and social development.

The editors hope to encourage dialogue on knowledge gaps and the way forward involving harmonised decision making based on cooperation between officials, scientists, practitioners, and stakeholders. Unique highlights include:

- First book to provide a general overview of Chinese land policy development and implementation
- Highlights the problems and imbalances in the current land policy in the dryland area of China with respect to synergy in ecosystem services
- Provides new concepts for land policy reform and more sustainable land use systems for dryland environments

The overall objective of the Sino-German funded project is to improve the capacity in quantifying and assessing the water yield response to changes in climate and land use, most notably vegetation restoration and afforestation. This creates a solid foundation for the integrated management of water and vegetation in vast parts of the Yellow River Basin (northwest China).

**Reference:**

Zhang, Lulu, and Kai Schwärzel Kai (Eds.). 2017. *Multifunctional Land-Use Systems for Managing the Nexus of Environmental Resources.* Springer.

Available for purchase here

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***United Nations University Institute on the Integrated Management of Material Fluxes and of Resources***

*The United Nations University aims to develop sustainable solutions for pressing global problems of human survival and development. The "Institute for the Integrated Management of Material Fluxes and of Resources" (UNU-FLORES) was established in Dresden, Germany in December 2012. The institute engages in research, capacity development, advanced teaching and training. UNU-FLORES develops strategies to resolve pressing issues in the area of sustainable use and integrated management of environmental resources such as soil, water and waste.*

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