News

Restoring rangelands for nutrition and health for humans and livestock

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Drylands cover 40% of the global land area and hosts 2 billion people of which 90% live in low- or middle-income countries. Photo: Ylva Nyberg

Drylands Transform is the new interdisciplinary research project starting up in the border region between Uganda and Kenya. The research team –coordinated by SLU – wants to modify the ongoing negative spiral of land, livestock and livelihood degradation into a positive transformation. The project aims to contribute to several of the United Nations sustainable development goals.

Drylands cover 40% of the global land area and hosts 2 billion people of which 90% live in low- or middle-income countries. Drylands often face severe land degradation, low agricultural productivity, rapid population growth, widespread poverty and poor health. Livestock-based livelihoods, largely depending on seasonal migration are the norm.

Vulnerable to climate change

People and land are highly vulnerable to climate change, while there are also changes in land tenure, insecurity/conflicts and rapid infrastructure growth. Governance structures and institutions are often eroded.

In Drylands Transform we will investigate the links between land health, livestock-based livelihoods, human well-being, and land management and governance. We will contribute with new knowledge for transformative change and sustainable development of rangelands in the drylands of East Africa.

Stakeholder engagement

Through strong stakeholder engagement in interdisciplinary research, we set out to explore the challenges and pathways towards a social-ecological transformation in drylands that optimizes synergies among the sustainable development goals (SDGs) while minimizing the trade-offs. We will use innovative field research approaches focusing on livelihood improvement through rangeland restoration and governance interventions in some counties in the border region between Kenya and Uganda.

Sustainable development goals

The entry point of Drylands Transform is the urgent need to identify and enhance synergies between food and nutrition security (sustainable development goal, SDG, 2), land and ecosystem health (SDG15) and peaceful and inclusive societies (SDG16) for sustainable dryland development, while minimizing trade-offs between agricultural productivity (SDG2), natural resources management (SDG15) and climate change (SDG13). Interactions between the above SDGs and good health and well-being (SDG 3), gender equality (SDG 5) and access to clean water and sanitation (SDG6) will also be analysed.

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Drylands Transform 2020-2024

In Drylands Transform we will:

- Assess land health at the landscape scale and explore the links with human health and well-being

- Co-develop sustainable rangeland management options with local communities, and set-up knowledge sharing hubs ('livestock cafés')

- Study impacts of seasonality and climate variability on food and livelihood strategies, well-being and resilience.

- Identify innovative land governance mechanisms and practices that effectively address livestock-keepers' dependence on both flexible and secure rights to land.

- Co-design and evaluate alternative scenarios for sustainable dryland transformation in East Africa with local and regional stakeholder groups.

The Swedish University of Agricultural Sciences (SLU) is leading the multidisciplinary team with researchers from Umeå University, Gothenburg University, University of Nairobi, Makerere University, World Agroforestry (ICRAF) and the Intergovernmental Authority on Development (IGAD).