

Field and Data Tools for Effective Rangeland Monitoring and Assessment

The primary objective of this side event is to share knowledge and experience of the successful co-production and adoption of standard monitoring systems that are being used to inform rangeland policy and management in North America and Central Asia.

Details

- **When: 09 December from 18:00 to 19:30.**
- **Location: MET-02**

Overview:

Over the last two decades, the adoption of standardized monitoring methods has enabled unprecedented data collection and environmental modeling approaches across drylands globally – **laying the foundation for new knowledge systems to combat land degradation and inform sustainable land management**. Standardized monitoring has permitted scalable assessments of the status, condition and trends in the health of drylands.

Qualitative and quantitative indicator datasets, novel remote sensing approaches and soil erosion models are **supporting development of data-driven frameworks for describing land potential and local ecological dynamics** needed to improve management outcomes.

These approaches and tools are dramatically simplifying dryland monitoring and assessment, in both developed and developing world contexts, increasing the decision-making value of monitoring.

Objectives:

1. Introduce standardized field monitoring and assessment methods that generate data that meet the needs of a wide range of users, support consistent land evaluations across geographic boundaries, and support resource allocation to address land degradation across spatial scales.
2. Demonstrate how monitoring approaches and datasets can be harmonized and linked to predictive models to build publicly available decision-support tools.
3. Illustrate how standard indicators of land health, biodiversity, wildlife habitat, and other ecosystem services are being used to support adaptive management and evaluate synergies and trade-offs of land management practices.

Agenda:

Topic
David Toledo - Welcome and introduction to the side event and speakers
Nick Webb – Connecting data with models to create science-based decision-support tools.
Gulnaz Iskakova – Modelling Livestock Carrying Capacity in the Akmola Oblast, Kazakhstan.
Burmaa Dashbal and Bulgamaa Densambuu – Implementing a resilience-based management system in Mongolia’s rangelands.
Discussion and Wrap-up

Presenters:

- Dr. David Toledo, U.S. Department of Agriculture – Agricultural Research Service, USA
- Dr. Nick Webb, U.S. Department of Agriculture – Agricultural Research Service, USA
- Gulnaz Iskakova, Kazakh National Agrarian Research University Almaty, Kazakhstan
- Dr. Burmaa Dashbal, Mongolian National Federation of Pasture Users’ Groups, Ulaanbaatar, Mongolia
- Dr. Bulgama Densambuu, Mongolian National Federation of Pasture Users’ Groups, Ulaanbaatar, Mongolia

Event Contact

Please email David Toledo (david.toledo@usda.gov) or Nick Webb (nick.webb@usda.gov) with any questions about the event.

Relevant Links

[Monitoring Manual for Grassland Shrubland and Savanna Ecosystems](#)

[Indicators of Rangeland Health](#)

[Landscape Data Commons](#)

[Rangeland Indicator Calculator](#)

[Wind Erosion Research Network](#)

[Ecosystem Dynamics Interpretive Tool](#)

[USGS Land Treatment Exploration Tool](#)