

AGRONOMY SEMINAR SERIES

FALL 2024

"Combating dryland degradation through community-based Sustainable Land Management (SLM) approaches"



Monday, October 28th
2:30 P.M. LILY 2-425

Attend virtually via Zoom

Seminar links will be posted at
purdue.ag/agryseminars



STEFAN STROHMEIER

PhD Environmental Engineering and Water Management

Assistant Professor and Deputy of the Institute of Soil Physics and Rural Water Management (SoPhy) at BOKU University, Vienna, Austria.

Competition for natural resources, particularly water, have become growing issues worldwide. Agriculture accounts for more than two thirds of the global water withdrawals - and this situation is expected to intensify in the face of the upcoming demographic and climatic changes. Among the key concerns in natural resources management are the spatio-temporal boundaries and arrays set for achieving sustainability. Those boundaries are particularly tight in the global drylands.

The seminar talk will showcase and discuss community-centered approaches to rehabilitate degraded agro-silvopastoral systems in dry areas, withdrawing from international experiences and collaborations across the dry belt and the Middle East. The merger of ancient Sustainable Land Management (SLM) concepts coupled with piloting, advanced monitoring and physical based modeling unlocks the potential of co-developing restoration attempts adoptable by rural communities. Jointly developed SLM measures aim at enhancing the agricultural productivity and resilience to shocks. But they also enhance the local farmers' knowledge and ability to earn income from diverse ecosystem services. Community involvement and governance are key to sustain the ongoing rehabilitation interventions. Ex-ante scaling procedures provide knowledge on the potential implementation scale and impacts the technologies might achieve across heterogenic landscapes and processes, particularly focusing on land degradation through wind and water erosion.

Co-developed SLM approaches foster the ongoing discussion among relevant stakeholders towards strengthening community-based concepts for enhanced local benefits, while combating desertification through greening the vast dryland buffer zones.



PURDUE
UNIVERSITY®

Agronomy