



Tropentag, September 10-12, 2025, hybrid conference

“Reconcile land system changes
with planetary health”

Historical land use change and statecraft in south america: shaping agroecological transitions

CARLA BALDIVIESO¹, LUCA EUFEMIA², SERGIO BOLIVAR³, ADRIANA MARTIN⁴, JANIKA
HÄMMERLE⁵, STEFAN SIEBER⁶, MICHELLE CHEVELEV-BONATTI⁷

¹*Leibniz Centre for Agricultural Landscape Research, SusLAND, Germany*

²*WWF · Mediterranean Marine Initiative, Italy*

³*Humboldt-Universität zu Berlin, Germany*

⁴*Leibniz Centre for Agric. Landscape Res. (ZALF), Germany*

⁵*Leibniz Centre for Agric. Landscape Res. (ZALF), Sustainable Land Use in Developing Countries (SUS-
Land), Germany*

⁶*Leibniz Centre for Agric. Landscape Res. (ZALF), Sustainable Land Use in Developing Countries (Sus-
LAND), Germany*

⁷*Leibniz Centre for Agric. Landscape Res. (ZALF), Sustainable Land Use in Developing Countries, Ger-
many*

Abstract

Grasslands and savannahs, though vital to global ecology and food production, often remain overlooked compared to other ecosystems. These biomes cover approximately 40 % of the planet’s land surface and constitute more than 70 % of agricultural and livestock areas, making them particularly vulnerable to accelerated land conversion and degradation. Argentina, Colombia, and Paraguay serve as case studies for understanding governance models that influence sustainability transitions due to their shared socio-cultural, economic, and environmental characteristics. This study explores how national governance structures shape the transformation of food systems and whether they enable or hinder the adoption of agroecological practices. By analysing these cases, we reveal how historical legacies continue to structure current land-use patterns and condition agroecological transitions. We employ historical institutional analysis and use the concept of Statecraft as an analytical lens to examine how governance has evolved. We investigate how state institutions have either constrained or supported radical changes at the local level through formal policies and political strategies. Special attention is paid to how land reforms have arrived in historical waves that mirror geopolitical, economic, and ideological shifts. We highlight the dynamic interplay between national governance structures and community-based decision-making processes. Our findings underscore the importance of addressing institutional legacies, governance frameworks, and historical land-use trajectories that influence and often constrain the potential for sustainable transitions. In these countries, land reforms and agricultural policies—whether through redistributive efforts, frontier expansion, or state-led colonisation—have historically intensified pressure on savannahs and grasslands, favouring extractive and unsustainable production models. While public policy can serve as a powerful tool to reinforce, scale up, and facilitate the adoption of both traditional and innovative agroecological practices, these efforts must contend with development paradigms that have prioritised short-term productivity over long-term ecological

resilience. Argentina's agroindustrial expansion occurred without significant land reform, Paraguay pursued an uneven redistribution process, and Colombia's land use was shaped by colonisation and armed conflict; yet across all three countries, agricultural frontiers advanced at the expense of native grasslands and savannahs. Recognizing these historical dynamics is crucial for designing governance frameworks that support transformative and sustainable changes in grassland and savannah landscapes.

Keywords: Governance models, Historical Institutional Analysis, Public Policies, South America