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Land Restoration in Tigray (North Ethiopia) – A Result of Science and Policy Interactions

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Abstract

Since at least three millennia, agriculture is practised in north Ethiopia, and the adaptation of the agronomy to soil and climate variability is nearly optimal. However, land management has for long been hampered by unequal access to land, prevalent stubble grazing and wood harvesting. Concomitant land degradation reached its paroxysm in the 1970s-1980s, with infamous famines. Thereafter, intense land reclamation took place.

Over the last three decades we used an array of geomorphological and environmental research methodologies in the northern Ethiopian highlands (particularly in Tigray) to better understand changes in the landscape, focussing on processes, their rates and spatial variability. Multispectral satellite imagery was also involved, as well as the interpretation of historical aerial and landscape photographs and their recent repeats, what allowed mapping land use and cover since the late 19th century and the development of timelines of vegetation cover and soil and water conservation.

In line with our findings on land resilience, and as a flagship for good governance, the Tigray region received the 2017 Future Policy Gold Award from the World Future Council. (https://www.worldfuturecouncil.org/press-release-fpa-2017/). In our presentation we address the past and the future of land management in northern Ethiopia. How did the status of soils and forests change over the last century? Which land management strategies can be followed to enhance sustainable output from soil, water and forest resources? What are the backlogs? Ethiopian farmers have proven to be good individual land managers, but can they also be good land use planners? How does all this impact on people's livelihoods?

Keywords: Famine, food production, land degradation, land resilience, world future council

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