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Land Resilience in Ethiopia - The Importance of a Common Understanding between Farmers, Science and Policy

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Abstract

Ethiopia is rapidly expanding its large dam building programme. Besides downstream challenges, the sediment delivery from upstream catchments is also a threat for the reservoirs. Cropping and the concomitant soil loss and sediment transport exists in north Ethiopia since at least three millennia. Though the adaptation of the agronomy to soil and climate variability is nearly optimal, land management has for long been hampered by unequal access to land, prevalent stubble grazing and wood harvesting. 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 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. We observed land resilience in many places in northern Ethiopia. For instance, in line with our observations, the Tigray region received the 2017 Future Policy Gold Award from the World Future Council for its land conservation activities. 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 reservoir sustainability?

Keywords: Land resilience in Ethiopia, Land degradation, Land conservation

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