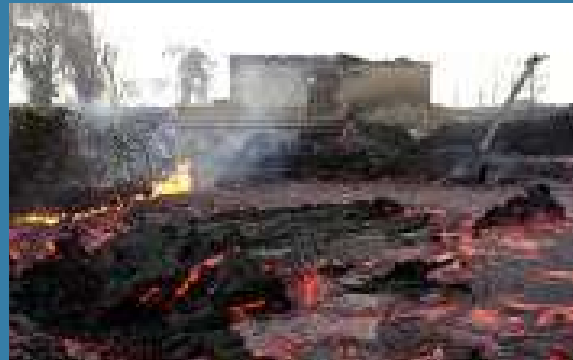




Royal Academy for  
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## Multidisciplinary Workshop

# Disasters and resilience in the 21st Century



11 December, 2017

## Abstract Book

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Espace Baudouin  
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## Science and policy interactions result in a success story for land restoration in Tigray, north Ethiopia

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KEYWORDS — Land degradation; Land resilience; World Future Council; Famine.

ABSTRACT — The rugged landscapes of Tigray in north Ethiopia have been degraded by agriculture for at least three millennia. Whereas, technically, under traditional conditions, agricultural adaptation 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. Concomitant land degradation reached its paroxysm in the 1970s-1980s with infamous famines, after which intense land reclamation took place. Over the last three decades we used an array of geomorphological and environmental research methodologies in the Tigray 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 19<sup>th</sup> 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? The global perspective (climate change, globalisation) will also be taken into account.

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