



Investigating how changing interactions between humans and elephants affect forest socio-ecological systems in drylands: A case study of Mukogodo Forest, Kenya

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Context

- Global biodiversity, ecosystem quality and connectivity are declining faster than ever before – transformative changes are needed (IPBES, 2019).
- Learning to balance the needs of people and wildlife with regard to space and resources will be key to this 'transformation' (Kinyanjui et al., 2020).
- In this context, dryland forests deserve particular attention despite being underresearched.

Wildlife conservation initiatives can alter the ways that human and nonhuman forest users interact. Taking human-elephant interaction as its lens, this project will investigate how changing human-nonhuman interactions as a result of conservation initiatives can affect the material and ontological existence of dryland forests.

Why is Mukogodo Forest Reserve an instructive case study?

- One of few remaining dry forests in Kenya and considered one of the most threatened biomes in the country (Webala et al., 2006).
- Land-use and governance in the region has an unsettled history replicating much of dryland Africa (Hughes, 2006; Unks et al., 2019). Mukogodo has been a place of exile and refuge for Maasai at various points in history (Karmushu (2020) pers. comm.).
- Elephant migration routes through the forest and human-wildlife conflict intensifying in the region (Graham et al., 2009).
- Site of significant physical (e.g. fence building) and discursive (e.g. policy) conservation initiatives.

Research Objectives

- 1) To understand how and why Maasai pastoralists perceive behaviours of elephant populations to have changed with wildlife conservation initiatives.
- 2) To investigate how Maasai pastoralists and other local people have been affected by these changes – focusing on aspects of socio-ecological systems shared by people, livestock, and elephants.
- 3) To evaluate how human-elephant interactions have altered the form, function, and existence of Mukogodo Forest – materially and ontologically.

Methods – 'more-than-human forests'

In contested landscapes, understanding how and why different human and nonhuman stakeholders 'experience' conservation differently is a vital step towards developing locally appropriate and sustainable conservation measures.

Triangulation of methods: 'walking oral histories' with Maasai pastoralists in Mukogodo; archival analysis; "official" records censuses.

Expected Outcomes and Contributions

- Much needed historical, socially situated account of forest-use and human-elephant interaction, and their interrelation (Winkel & Jump, 2014; Barua et al., 2013).
- Contributions to scholarship in human-wildlife conflict, value dimensions of forests, and post-human political ecology.
- Determine lessons from Mukogodo to inform and improve conservation of dryland forests for the benefit of human and nonhuman forest users in Mukogodo and beyond.



Acknowledgements: This study is generously funded by The Leverhulme Trust. **References:** Barua et al., (2013) The hidden dimensions of human-wildlife conflict: Health impacts, opportunity and transaction costs; Graham et al. (2009) The movement of African elephants in a human-dominated land-use mosaic; Hughes (2006) *Moving the Maasai: A colonial misadventure*; IPBES (2019) Global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services; Webala (2006) The small mammal community of Mukogodo Forest, Kenya; Kinyanjui et al., (2020) Local attitudes and perceived threats of human-elephant conflict: A case study at Lake Jipe, Kenya; Unks et al., (2019) Unevenness in scale mismatches: Institutional change, pastoralist livelihoods, and herding ecology in Laikipia, Kenya; Winkel & Jump (2014) Perspectives on forest conservation: building evidence at the frontier between policy and conservation science Map adapted from: Webala, 2006. Fig 1: Maasai elder walking © Shadrack Kavilu for Mongabay. Fig 2: Mind of clocks © Shutterstock. Fig 3: Archives © The National Archives. Background photo elephants © Larry Li Unsplash