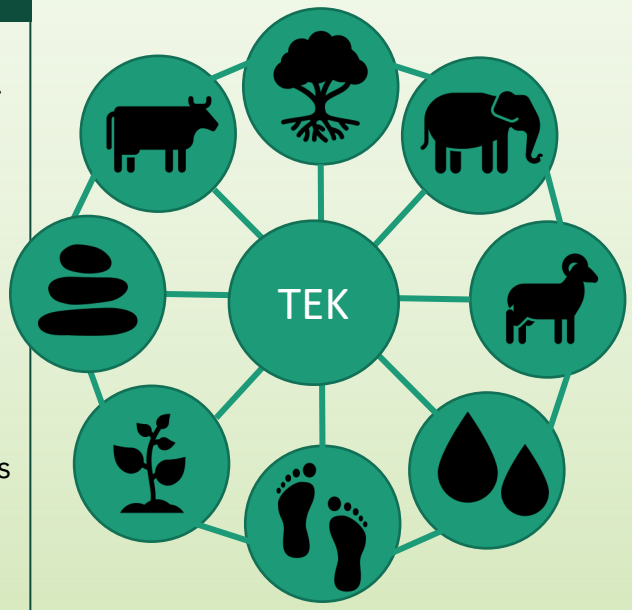
Harriet Croome: Forest Edge Doctoral Scholar, University of Birmingham
hxc008@student.bham.ac.uk
Supervisors: Dr Brock Bersaglio & Professor Fiona Nunan

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

UNIVERSITY OF BIRMINGHAM | BIFOR

Introduction

- Changes to land use and climate are increasing pressure on forests, and forest-dependent peoples, animals and landscapes.
- Laikipia County in Kenya provides an example of this, with one consequence being changes in wild animal population density and distribution, in and around Mukogodo Forest.
- Changes to animal densities and distributions – in particular, elephants – can significantly impact forested habitats (Schüßler, Lee & Stadtmann, 2018); Strum, Stirling & Mutunga, 2015).
- Relatedly, human-wildlife conflict is increasing (KWS, 2016).
- Human-wildlife conflict has received much scholarly attention but **important gaps remain** in the literature, namely:
- **Traditional Ecological Knowledge (TEK)** regarding consequences of changing human-nature relations (Buchholtz et al., 2020);
- **Gendered experiences** of changing human-wildlife interactions;
- Consequences not only of conflict, but of **attendant mitigation measures** also – especially spatially and temporally distant ones.



Methods

- **Walking oral histories** with Laikipiak Maasai [elders, moran (adult men) and women] and other stakeholders.
- Focus on Il Ng'wesi & Lekurruki conservancies, and pastoralists in Samburu, Isiolo & Marsabit counties.
- **Following the nonhuman**; literally and through the pages research, reports, and archival material.

Intended contributions

- Puts the "ecology back into political ecology" by renewing focus on nonhumans but without diverting attention from socio-environmental justice component (de Silva and Srinivasan, 2019).
- Adds to growing body of research on **'less visible' dimensions of HWC** with relevance globally (Barua, 2013).
- Has potential to guide more **effective, ecologically sound, and socially inclusive**, HWC mitigation measures.

Research Aim

Focusing on Mukogodo Forest, this research aims to learn from the **traditional ecological knowledge** of Laikipiak Maasai to reveal **processes of forest change**, their connection to human-wildlife interaction and conflict, and the **socio-ecological consequences** of these changes for **humans and nonhumans** living in and around Mukogodo Forest.

Research Questions

a) How has the population, distribution and behaviour of wildlife changed in recent history (100-150 years)?
b) Have interactions between people, their livestock, and wildlife changed in this time and if so, how?
c) What is driving these changes?
d) What have been the consequences of these changes, for humans and nonhumans?

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", *Health & Place*; Buchholtz et al., (2020) "Experts and elephants: Local ecological knowledge predicts landscape use for a species involved in human-wildlife conflict", *Ecology & Society*; de Silva and Srinivasan (2019) "Revisiting social natures: People-elephant conflict and coexistence in Sri Lanka", *Geoforum*; Schüßler, Lee & Stadtmann (2018) "Analyzing land use change to identify migration corridors of African elephants (Loxodonta africana) in the Kenyan-Tanzanian borderlands" *Landscape Ecology*; Stirling & Mutunga (2015) "The perfect storm: Land use change promotes Opuntia stricta's invasion of pastoral rangelands in Kenya", *Journal of Arid Environments*.