

“Community-Based Fire Management”: A colonial narrative?

Institutions, Governance, and Policy for Addressing Fire Challenges Across East and Southern African Savanna Ecosystems

Abigail Croker (CEP, Imperial College London)

Supervisors: Dr Ioannis Kountouris and Dr Jem Woods (CEP, Imperial College London)

Research funded by NERC through the Science and Solutions for a Changing Planet Doctoral Training Programme (SSCP DTP)

Introduction

Community-based fire management (CBFiM) is an alternative fire management framework that promotes a “bottom-up” etiological approach for addressing increasing and diverse fire challenges. Suppression policies introduced in Africa during 19th-20th century European colonisation have engendered a self-reinforcing *wildfire paradox* where the exclusion of fire from the landscape induces larger, more intense fires due to fuel accumulation (Pyne, 2020; Tendim et al. 2020).

The establishment of savanna PAs across East and Southern Africa to serve the interests and ‘wild’ imaginings of colonial administrations and white settlers have spatially and temporally altered the fire regimes on which savanna health and functioning relies (Garland, 2008); fires now exceed natural variability levels within PA boundaries where humans have been displaced and are absent in areas inhabited by increasing human and livestock densities (Fig. 1) (Archibald, 2016). The latter having lowered the fire spread threshold due to landscape fragmentation. This dual fire challenge has engendered widespread systemic social-ecological complexities and ecosystem degradation.

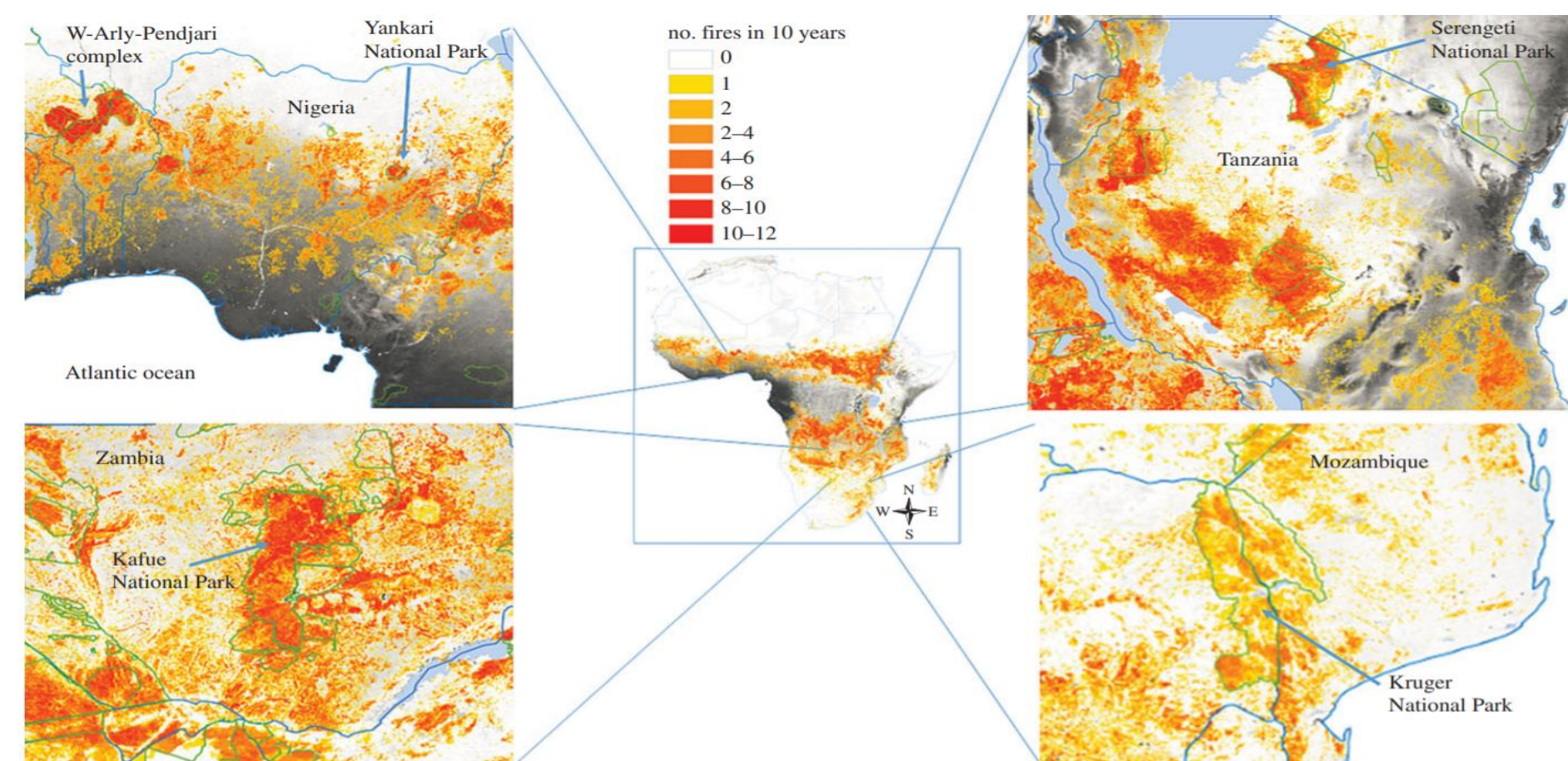


Figure 1. Spatial distribution of fires across Sub-Saharan African savannas reflects a strong negative correlation between population density and fire, where the size of fire exponentially increases where human densities are below 10 people per km². This is most common in PAs where Euro-centric suppression policies have and continue to be enforced.



Images: Members of the Maasai community in Talek, Southern Kenya, lighting a fire for vegetation regeneration. Abigail Croker (2017)

‘European colonization has been associated with the implementation of fire suppression policies in many tropical savanna regions, markedly disrupting traditional fire management practices and transforming ecosystems.’ (Moura et al. 2019)

Problem Statement

The dual fire challenge occurring across East and Southern African savannas, combined with ambiguity surrounding the definition of a ‘natural’ fire regime and a recent and on-going colonial history, the social-ecological dimension inherent in savanna fire regimes has been largely neglected.

To address these challenges, CBFiM has been proposed as an alternative fire management framework that recognises the double-role of fire and the importance of “bottom-up” management frameworks for long-term sustainable outcomes. However, CBFiM has also been criticised for failing “to provide a systematic approach to addressing differential conditions in different locations” (Tendim et al. 2020 [pg. 237]).

This thesis identifies two key issues:

1. CBFiM lacks a clear definition and has been widely applied to describe fire management models that incorporate some degree of community involvement. For CBFiM to provide a legitimate “bottom-up” fire management framework, the local community must have a significant degree of input in decision-making processes. Equally, the nature of their input must be proactive rather than passive or consultancy. This is extended to the framework’s establishment and active participation, such as that they are involved in the initiation and planning of the framework and are actively willing to engage in tasks.
2. This thesis recognises the coloniality of knowledge and argues that contemporary fire challenges are symptoms of their historical and contemporary social-ecological and political-economic contexts at multiple overlaying spatial and temporal scales. They need to be investigated independently within their local systemic context rather than aiming to provide a globally standardised approach which uncouples fire from its genesis.

“It is surely difficult to discuss research methodology and indigenous peoples together [...] without having an analysis of imperialism, without understanding the complex ways in which the pursuit of knowledge is deeply embedded in the multiple layers of imperial and colonial practices” (Smith, 2015 [pg.2]).

Research Questions

Primary Research Question

Is CBFiM an extension of the colonial narrative in an East and Southern African context? Or does it provide an alternative and realisable equitable, effective, and sustainable ‘bottom-up’ fire management framework?

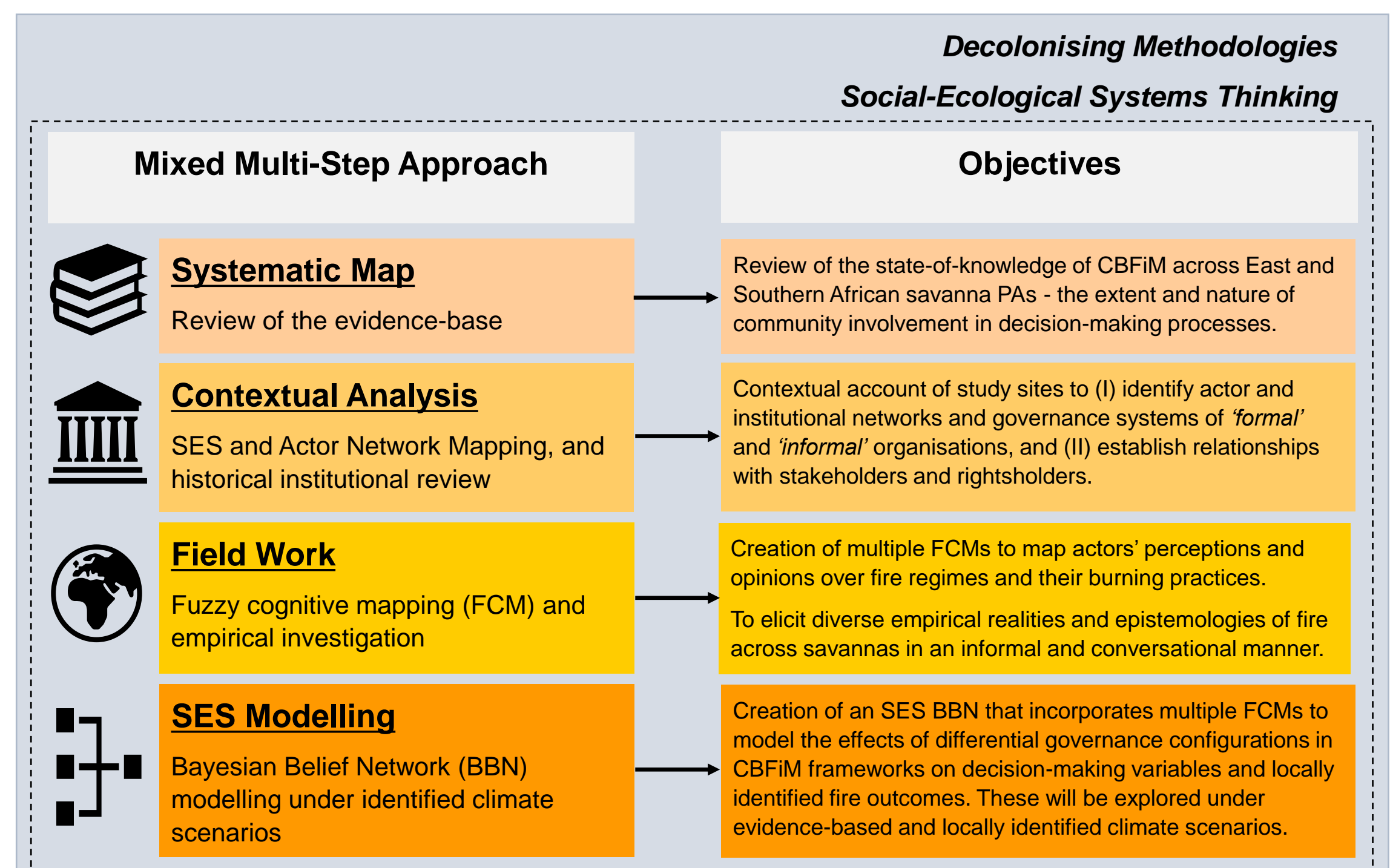
Secondary Research Questions

Does the effectiveness of community-based fire management in savanna protected areas across East and Southern Africa differ conditionally on type of governance system?

What is the relationship between one cultural heritage, two different colonial experiences, and contemporary fire-related challenges? (site-specific context).

Can equitable and adaptive governance and policy solutions, based on knowledge co-production and collaborative networks, be realised for addressing fire regimes in changing social-ecological savanna protected areas?

Methodology



References

- Archibald, S. (2016) Managing the human component of fire regimes: lessons from Africa. *Philosophical Transactions of the Royal Society B*, 371.
- Garland, E. (2008) The Elephant in the Room: Confronting the Colonial Character of Wildlife Conservation in Africa. *African Studies Review*, 51(3), 51-74.
- Moura, L. C., Scariot, A. O., Schmidt, I. B., Beatty, R. and Russel-Smith, J. (2019) The legacy of colonial fire management policies on traditional livelihoods and ecological sustainability in savannas: Impacts, consequences, new directions. *Journal of Environmental Management*, 232, 600-606.
- Pyne, S. J. (2020) From Pleistocene to Pyrocene: Fire Replaces Ice. *Earth’s Future*, 8(11)
- Smith, L. T. (2012) *Decolonizing Methodologies: Research and Indigenous Peoples*. Second Edition. London: Zed Books.
- Tendim, F., Leone, V. and McGee, T. K. (2020) *Extreme Wildfire Events and Disasters: Root Causes and New Management Strategies*. Amsterdam: Elsevier.