

Elephants on commercial land

Analysing social-ecological drivers of elephant movements and the potential of upcoming management options



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Namibian-German cooperation
Tandem master studies

Challenges



Benefits for...



...which result in:

- Importance to ecosystems
- Revenue generated via tourism
- Difficulties to establish proper farm management
- Predators leaving protected areas
- Livestock escaping kraals
- Safety issues: Raised fear amongst farmers and workers of elephant visits

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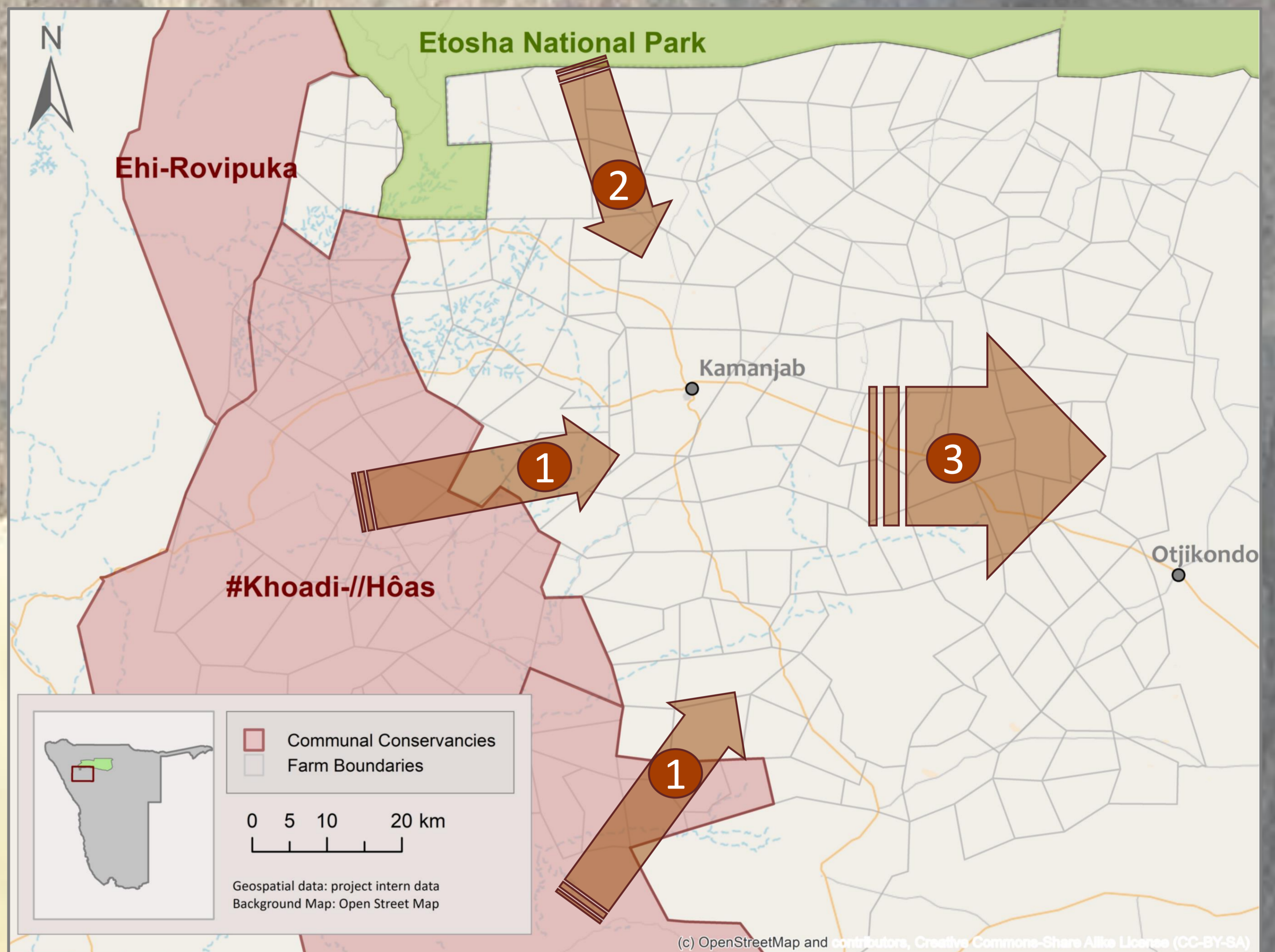
Options for sustainable land use adaptations in savanna systems: Chances and risks of emerging wildlife-based management strategies under regional and global change

Tandem master studies:

Determining the drivers of the elephants' movements and identifying the consequences of different management strategies to mitigate the conflict between elephants and humans

Potential elephant movements described by farmers

According to the farmers (interview based information) elephant herds are moving from the communal conservancies eastwards to the commercial area **1**. Simultaneously there seems to be a pressure caused by elephants leaving the Etosha National Park **2**. Farmers indicate that the area's population is moving eastwards **3** which is supposed to be checked by movement data provided by MET.



Analytical approach

Data (potential drivers)

Natural: vegetation, precipitation

Social: land use types (livestock, hunting, mixed management), fences, ...

Movement data: collared elephants, provided by MET

Methods

Driver analysis (socially and naturally)

GIS/ Agent-based modeling

Scenarios: What could happen if ...

- ...there would be further population growth in the area?
- ...the number of elephants would be reduced?
- ...the main routes from the West and the national park would be blocked by fencing?
- ...the hunting would increase/decrease in specific areas?
- ...the vegetation would further deteriorate within the next years?
- ...if specific farmers would change their management?