



PHILIP, Millicent

Country of Origin: Kenya

Climate Change Adaptation



The Impacts of Rangeland Restoration on Households' Adaptation to Climate Change in Amboseli Ecosystem: A Case of OOCR in Kajiado County

Introduction and problem statement

- Rangelands are vast natural landscapes that consist predominantly of native grasses, shrubs, and other vegetation forming the primary land cover (Singh, 2022).
- In Kenya, rangeland ecosystems such as the Amboseli and Mara are facing the severe impacts of climate change.
- Rangeland restoration interventions such as Olopololi plots and grazing committees, grass seed banks and water bunds have been implemented in the Olgulului Ololarashi Group Ranch to mitigate the impacts of climate change.
- However, there is a lack of scientific evidence on the effectiveness of these interventions. There is a need to assess the socio-ecological adaptive capacity of communities using livestock productivity and soil organic carbon as indicators of rangeland restoration.

Objectives

1. To investigate the impacts of rangeland restoration interventions like Olopololi plots and grazing committees in improving livestock productivity.
2. To assess the soil organic carbon stock under different land use types in Olgulului Ololarashi group ranch.
3. To assess the socio-ecological adaptive capacity of communities using livestock productivity and soil organic carbon as indicators of rangeland restoration.

Methods

- Household surveys
- FGD with grazing management committee
- Laboratory analysis for soil organic carbon
- Key informant interviews



Results

1. Livestock Productivity Improvement was recorded between 2018 up to 2023, where 100 households produced 0-2 litres, compared to between 2013 and 2017 which recorded a very low number of households.
2. Soil Organic Carbon Enhancement has been observed to vary across different land use types within the ranch, where grass seed bank areas and olopololi plots recorded high rates of SOC.
3. The socio-ecological adaptive capacity of the community was noted to have been improved as a result of improved livestock productivity and high soil organic carbon stock, improved income and food security

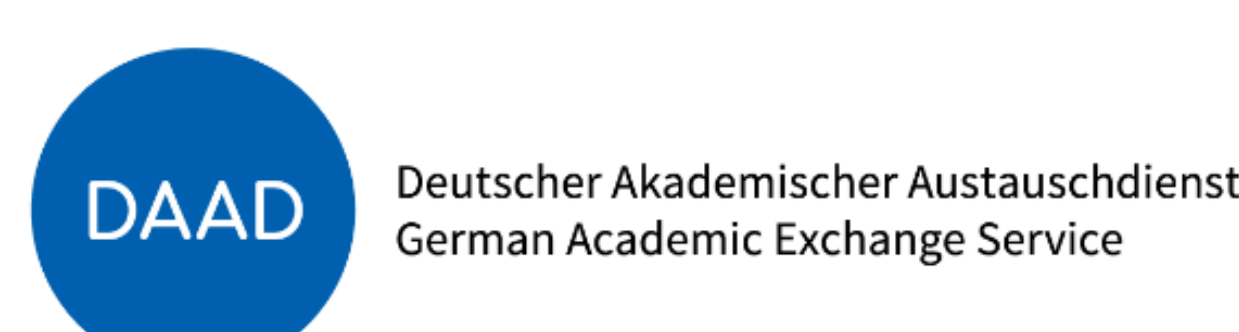
Conclusion and recommendations

There is a positive Impact on Livelihoods, with clear evidence of rangeland restoration positively affecting households' adaptive capacity through improved livestock productivity, potentially leading to enhanced income and food security.

These **recommendations** are important to the national government and NGOs like Justdiggit, ACC, and Lead Foundation Tanzania.

- To encourage the adoption of successful rangeland restoration interventions identified in the study like grazing management and grass seed banks across similar ecosystems and regions.
- To promote community involvement and awareness programs to such projects. This can include workshops, knowledge-sharing platforms, and educational campaigns.
- Continuous Monitoring and Assessment: To establish a long-term monitoring framework to continually assess the impacts of rangeland restoration on both socio-economic factors and ecological health.

Partner institutions:



Funded by:

