GRASSLAND DYNAMICS AND THEIR RELATION TO MAASAI GRAZING PATTERNS IN LONGIDO DISTRICT, TANZANIA

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ABSTRACT

Misconceived policies due to misunderstanding and misinterpreting grassland dynamics, negatively impact pastoralists around the world. In various regions this has led to conflicts between conservationists and pastoralists. This research aims to use remote sensing (RS) to analyse the dynamics of the savanna ecosystem in Longido District, Northern Tanzania. To obtain a better understanding of the causes behind the fluctuations, the trend will be compared to climatic, demographic and wildlife population data. Ultimately, a framework will be proposed of how RS data can be used in sustainable land management and pastoralist-conservationist conflict resolutions.

GOALS

1. Analyse grassland dynamics over time and space in Longido District
2. Due to climate fluctuations or anthropogenic factors?

STUDY AREA

- Area Longido: ~8,000 km²
- Dry season: Jun–Oct
- Climate: Hot semi-arid
- Average temp: 20.3°C
- Overcast: 35–70%
- Ethnic group: Maasai
- Annual Rainfall: 600 mm

PROBLEM

- Land-use management conflicts between conservationists, pastoralists, and policy makers
- Preparation for restrictive grazing policies threatening Maasai livelihood
- Ecosystem dynamics unknown to policy makers
- Causes of potential dynamics assumed to be anthropogenic but may well be climatic.

WHY?

- Support creation of sustainable land policies
- Support managing pastoralist-conservationist conflicts
- Contribute to making RS a valuable and accessible data source for low-income communities worldwide.

KEY REFERENCES