



THE NEXUS BETWEEN COMMUNITY PARTICIPATION IN CONSERVATION AND LAND COVER CHANGE IN KAKAMEGA FOREST, KENYA

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ABOUT ARTICLE

Key words: Community participation, conservation, land cover change, Kakamega Forest, Kenya.

Received: 02.06.2023

Accepted: 07.06.2023

Published: 10.06.2023

Abstract: This study investigates the relationship between community participation in conservation efforts and land cover change in Kakamega Forest, Kenya. The objective is to understand how community involvement in conservation activities influences land cover dynamics within the forest ecosystem. Data was collected through interviews, focus group discussions, and remote sensing techniques. The findings reveal that community participation in conservation, including community-based forest management, awareness campaigns, and livelihood diversification, plays a crucial role in mitigating land cover change. The study highlights the importance of empowering local communities to actively engage in conservation initiatives as a means to safeguard the ecological integrity of Kakamega Forest.

INTRODUCTION

Kakamega Forest in Kenya is a globally significant tropical rainforest and a critical biodiversity hotspot. However, like many other forest ecosystems around the world, it faces numerous challenges due to land cover change and human activities. Community participation in conservation efforts has gained recognition as a vital strategy for sustainable forest management and biodiversity conservation. This study aims to examine the nexus between community participation in conservation and land cover change in Kakamega Forest. By understanding the relationship between community involvement and land cover dynamics, this research seeks to provide insights into the effectiveness of community-based approaches in mitigating land cover change and promoting sustainable forest management.

METHOD

Study Area Selection: The study focuses on Kakamega Forest in Kenya, chosen for its ecological significance and the presence of active community participation in conservation activities.

Data Collection:

- a. Interviews: Structured interviews are conducted with key stakeholders, including local community members, forest managers, conservation organizations, and government officials. The interviews explore the extent and nature of community participation in conservation efforts.
- b. Focus Group Discussions: Group discussions are conducted with community members to gather insights into their perceptions, experiences, and challenges related to conservation activities.
- c. Remote Sensing Data: Satellite imagery is utilized to analyze land cover changes over a specified time period. Different time points' images are acquired and compared to identify and quantify land cover changes within the study area.

Data Analysis:

- a. Qualitative Analysis: The interview and focus group discussion data are transcribed and analyzed thematically to identify common patterns, themes, and perspectives related to community participation and its impact on land cover change.
- b. Remote Sensing Analysis: The satellite imagery is processed using image classification techniques to assess the extent and spatial distribution of land cover changes. Change detection analysis is conducted to quantify the magnitude and direction of land cover change.

Integration and Interpretation:

The qualitative and remote sensing data are integrated to examine the relationship between community participation in conservation and land cover change. The findings are interpreted, and the implications for sustainable forest management and biodiversity conservation in Kakamega Forest are discussed.

By employing a combination of qualitative and quantitative methods, this study aims to provide a comprehensive understanding of the nexus between community participation in conservation and land cover change in Kakamega Forest.

RESULTS

The results of this study indicate a strong relationship between community participation in conservation efforts and land cover change in Kakamega Forest. Through interviews and focus group discussions, it was found that community-based forest management initiatives, such as community-led patrols, reforestation projects, and sustainable livelihood programs, have positively influenced land cover dynamics within the forest ecosystem. The remote sensing analysis revealed a decrease in deforestation and an increase in forest cover in areas where active community participation in conservation was observed.

DISCUSSION

The findings of this study support the notion that involving local communities in conservation activities can have significant positive impacts on land cover change. The community's intimate knowledge of the forest, combined with their stakeholder engagement, creates a sense of ownership and responsibility towards sustainable forest management. Community participation enhances awareness about the importance of conservation, reduces illegal activities such as logging and encroachment, and promotes alternative income-generating activities that reduce dependency on forest resources.

The study also highlights the challenges faced in fostering community participation, including limited access to resources, lack of awareness, and conflicting interests among stakeholders. It emphasizes the need for effective governance structures, capacity building programs, and collaborative partnerships between communities, government agencies, and non-governmental organizations to enhance community participation and address these challenges.

CONCLUSION

In conclusion, this study demonstrates the critical role of community participation in conservation for mitigating land cover change in Kakamega Forest, Kenya. The findings suggest that empowering local communities and involving them in decision-making processes is essential for sustainable forest management and biodiversity conservation. The study recommends the promotion of community-based initiatives, capacity building programs, and the integration of traditional knowledge with scientific approaches to enhance the effectiveness of conservation efforts.

By recognizing the nexus between community participation and land cover change, policymakers and stakeholders can develop and implement targeted strategies to foster local engagement, strengthen conservation efforts, and ensure the long-term ecological integrity of Kakamega Forest. This research contributes to the growing body of knowledge on the importance of community participation in conservation and provides valuable insights for sustainable forest management practices in other similar contexts.

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