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Community-Led Platforms for Wildlife Conservation Detect Illegal Activities in Ugandan National Parks: An Evaluation

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Abstract

Community-led platforms have emerged as a novel approach to engage local communities in wildlife conservation efforts surrounding Uganda's national parks. The study employed a mixed-methods approach, combining quantitative data from platform usage logs with qualitative interviews to assess the performance and user satisfaction of the platforms. Initial results indicate that the community-led platforms have detected illegal activities at an average success rate of 75%, with notable contributions from youth groups in remote areas. The findings suggest a positive role for community engagement in wildlife conservation, though further research and technology adaptation are needed to enhance detection rates. Future studies should focus on expanding platform reach into more remote regions and integrating machine learning algorithms to improve detection accuracy. Model estimation used $\hat{\{\theta\}} = argmin\{\theta\} sumiell(yi, f\theta(\xi)) + \lambda lVert\theta rVert 2^2$, with performance evaluated using out-of-sample error.

Keywords: *African Geography, Community Participation, Conservation Informatics, Mixed Methods, Participatory Monitoring, Geographic Information Systems, Wildlife Crime Detection*