

**ASSESSMENT OF THE EFFECTS AND LEVELS OF DEFORESTATION ON THE  
RANGELANDS OF KIRITIRI**

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**ABSTRACT**

Deforestation of ecosystems is a major aspect of rapid ecological and climatic change globally. Kenya faces the risk of unproductive land due to deforestation. Water scarcity amongst other impacts of deforestation such as unpredictable weather patterns has become very evident. Habitat loss for fauna and extinction of flora is also notable. The purpose of this research was to evaluate the level of deforestation in Kiritiri. The increase in human population has led to increased rangeland disturbances through encroachment into these vital ecosystems. This alteration of vegetation patterns has significantly contributed to habitat loss for wildlife besides forage loss for livestock as invasive plants have also found their way into the grazing areas.

Overexploitation of Kiritiri rangelands has contributed to rangeland deterioration over the past ten years. Unregulated exploitation compromises rangeland sustainability. The study also employed socio-economic survey that involved the use of questionnaires and interviews to ascertain the perceptions of the community regarding the level of extraction, the short term effects and long term impacts of the same. The study site was divided into blocks whereby quadrats were used to quantify the relative abundance of vegetation, and the derived sample estimated. The random and purposeful sample was used to determine the frequency and distribution of vegetation in the area using analytical methods. The great reduction in rangeland quality calls for combined efforts of range managers and communities to manage the rangeland ecosystems through dryland agroforestry, community-based wildlife conservation, preservation of endangered flora and fauna, awareness on rangeland economic value, waste management and Water-soil conservation.