

**ASSESSMENT OF THE EFFECTS OF INVASIVE PLANT SPECIES ON
RANGELANDS IN KIRITIRI**

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ABSTRACT

Species introductions of anthropogenic origins are a major aspect of rapid ecological change globally. The increase in human population has led to increased rangeland disturbances and hence the rapid spread of alien species to this vital ecosystem. The purpose of this research was to evaluate the impact of invasive plant species in Kiritiri. Development in Kiritiri town and other urban centres have contributed to rangeland deterioration through land-use practices such as grazing, crop cultivation and infrastructure. These activities, when not regulated, accelerate the invasion and spread of introduced plant species. The study also employed a socio-economic survey that involves the use of questionnaires and interviews to ascertain the perceptions of the local community regarding origin, impact and uses of the species. Seventy-eight per cent of the respondents indicated that invasive plant species presence has had a negative effect on biodiversity in Kiritiri through the loss of native vegetation. The study site was divided into five blocks whereby transects of 5m were used to quantify the relative abundance of the targeted plant species, which was *Lantana camara* and the derived sample size was estimated. The random and purposeful sampling was used for data collection and after processing, data was then analyzed using analytical methods in Statistical Package for Social Sciences (SPSS) computer software version 23 and *Chi square* tests were done to test on significant variables among variables ($p \leq 0.05$). Invasive plant invasion was particularly likely in habitats disturbed by human activities. The study shows that *Lantana camara* is a major environmental problem in the study area through its swift colonization of strategic grazing reserves and is rapidly colonizing new areas. The findings of this study call for concerted efforts to manage the rangeland ecosystem through wildlife conservation initiatives, sustainable farming, dry land agroforestry, energy, water and soil conservation methods and proper waste management.