Effectiveness Of Aberdare Electric Fence on Human-Wildlife Conflicts in Amboni Community, Nyeri County, KENYA

Romario A. Morang'a, Fredrick K. Waweru, Juma Misiko

Institute of Tourism and Hospitality Management, Dedan Kimathi University of Technology, Private Bag 10143 Dedan Kimathi, Nyeri, Kenya

Abstract

Conflicts between humans and wildlife are a paramount threat to conservation of flora and fauna around the world. For instance, in Kenya, with much of the wildlife living outside protected areas, enhanced and sustainable coexistence between people and wildlife has been a challenge. On the contrary humans expose themselves to wildlife through poaching or settling along wildlife areas hence amplifying conflicts with wildlife. The main objective of the study was to assess the impact of the Aberdare electric fence on human-wildlife conflict (HWC) in Amboni area, Nyeri County, Kenya. The target population was Amboni community with 11 villages. The study used purposive sampling to select three villages (Kiguru, Ex-pages and Mutishieni). A 30% of household from each village was computed giving a sample size (n=195). Data collection involved questionnaires and interviews, with SPSS v25 used for analysis. Results from paired t-test analysis showed that paired sample test had negative t values and, therefore, significant for all the pairs. Only two of the pairs showed non-significant values (P > 0.05). It was evident that variable changes for 7 of the paired differences (type of crop damage, animal involved, land size affected, causal wild animal, domestic animal depredated, physical infrastructure destroyed and access to natural resources in the park) were statistically significant with their p-values less than 0.05. However, results of estimated losses (M = -0.03, SD = 0.67, t (155) = -0.445) and income earned (M = 0.03, SD = 0.43, t (155) = -0.686) did not have a statistical significance change as a result of the electric fence installation. The research concluded that the electric fence installed along the boundaries of Aberdare National Park especially at the Amboni community had reduced some of the perennial human-wildlife conflicts than was experienced before. The electric fence has facilitated reduction in the crop damages, livestock depredation, reduction in affected farm coverage and reduction in property

losses. The research recommends the government, travel industry investors, and NGOs to support KWS in establishing a compensation or insurance fund to cover local community losses caused by wildlife damage, particularly from primates which are not covered by the wildlife compensation scheme.

Key words: Human-wildlife conflict, Household, Problem Animal Control, Sustainable Development Goals.