

ABSTRACT

The group ranch system is one of the best land ownership and livestock production strategies Page | 153 in the dry lands of the world where the potential for rain-fed agriculture is limited. This has resulted in numerous studies on the establishment of group ranches, their dissolution and coping strategies but with less focus on the sustainability of the group ranches. It is against this background that this study investigated environmental characteristics influencing choice of sustainability strategies adopted by group ranches in Samburu County, Kenya. The investigation adopted a descriptive survey research design employing use of Questionnaires, Key Informant Interviews, Focus Group Discussions and observation as primary data collection methods. The study used content validity and Cronbach's alpha methods to measure validity and reliability of the research instruments, respectively. The target population for the study was the 16,611 registered members in 38 group ranches spread out in the County. The study sampled twelve group ranches with approximately 5,643 members from which 374 respondents were systematically sampled. Purposive sampling was used to select Key Informants and the participants in the Focus Group Discussions. The study employed Multi-linear Regression to analyse environmental characteristics determining choice of sustainability strategies. The Analysis of Variance (ANOVA) was used to test the hypothesis and p-value of 0.00 was obtained, indicating that environmental characteristics significantly determined choice of sustainability strategies adopted by group ranches in the County. Overall, rainfall patterns were the predominating environmental characteristic with a regression coefficient of 0.317 while diseases had the least influence on choice of sustainability strategies adopted by group ranches in Samburu County, with a regression coefficient of 0.029. The study recommended integration of environmental characteristics in formulating policies for sustainability of group ranches.