

The objective of this study was to assess the economic feasibility of live fences on farms adjacent to Kakamega Forest. There is a great need to conserve the forest, which has enormous local, national and global benefits. One of the sustainable ways through which conservation and regeneration of Kakamega Forest can be achieved is by developing alternative sources on farm, where households can be able to meet their demand for forest wood products. Establishment of live fences is one of the alternative methods. However, whether a live fence is economically worthwhile, remains a question that need to be answered. This study used the framework of cost benefit analysis and the Net Present Value methods to determine the economic feasibility of live fences. Projected benefits and costs were discounted at an economic rate of 12 percent for a period of 12 years. The study also identified potential advantages and disadvantages of establishing a live fence by administering an interview schedule to the residents surrounding the southern part of Kakamega Forest particularly in Shinyalu Division. Also, farmers who have established live fences in the area were purposively selected and were interviewed to identify the various costs and benefits involved in establishing a live fence. Secondary data was sourced from BIOTA studies, ICRAF and KEFRI publications. The farmers cited several potential advantages and a few disadvantages of establishing a live fence. The major advantages include, a source of firewood, boundary marking, a source of timber, wind breaking, charcoal, shade for humans and livestock, organic matter, fodder for livestock, and structural materials. Several disadvantages were also cited which include negative effects of shade and roots on crop production, source of conflict with neighbours, a high cost of establishment, inaccessibility of planting stakes and habitat for dangerous animals and insects. The results of cost benefit analysis indicated positive net benefits when a live fence is established on farms. The discount rate was adjusted upward to 18 percent. The tests provided stable results with a positive NPV. It is therefore necessary for all stakeholders involved in conservation of Kakamega Forest to encourage, train and fund farmers to aid them adopt live fences, which can positively mitigate forest degradation.