ABSTRACT

Forest degradation remains a serious problem in Kenya, but opinion is divided on whether to protect degraded forests in order to facilitate natural regeneration or plant th em to accelerate forest recovery. In situations where tree planting has been adopted, appropriate spacing has also been identified as a challenge. We used a replicated randomized block experiment to compare forest recovery under site protection and aided r egeneration at 0.3 m, 1 m and 5 m spacing in order to identify the most appropriate forest rehabilitation technique in the Nandi Forest Ecosystem. Data was collected on tree species type, tree height and diameter at breast height (DBH). The data was analyz ed using two - way analysis of variance in Genstat procedures. Under aided forest recovery , tree height and DBH were significantly higher at 0.3 m spacing than 1 m and 5 m, which gave fairly comparable results. T here was no significant difference in tree hei ght and DBH between natural regeneration and aided forest recovery at 0.3 m spacing. Findings of the study suggest that site protection and dense planting give fairly similar results, but the former is more appropriate in degraded forest sites with adequat e sources of natural regeneration, such as a viable soil seed bank, remnant trees and stump sprouts. Aided forest recovery, particularly dense planting, is suitable in sites with insufficient sources of natural regeneration