The effect of anthropogenic disturbances on population structure and regeneration ofScorodophloeus fischeri and Manilkara sulcatain coastal forests of Tanzania

Author(s)

C Mligo, HVM Lyaruu & HJ Ndangalasi

Abstract

Scorodophloeus fischeri (Fabaceae, subfamily Caesalpinoideae) and Manilkara sulcata(Sapotaceae) are examples of tropical African hardwood species and are endemic to East African coastal forests. These plant species are threatened by human activities beyond natural recovery in some forests. This study aimed to assess the effects of anthropogenic disturbance on the natural regeneration potential of S. fischeri and M. sulcata in the selected coastal forests of Tanzania. Transects were established in various vegetation communities and a nested quadrat technique was used to assess the natural regeneration. Scorodophloeus fischeri regenerates best in Zaraninge forest with high density of trees with diameter at breast height (DBH) between 10–50 cm and a higher seedling density than in other forests. Similarly, M. sulcata regenerates best in Pande forest, although many trees had a DBH of 10–30 cm, implying that the trees with size classes above these are missing. It was concluded that the minimum level of human disturbances in Zaraninge favoured high potentials of natural regeneration of S. fischeri. Disturbances through human activities contributed to the variation in the natural regeneration potentials for S. fischeri and M. sulcata in these forests. Conservation attention is likely to improve population structure and natural regeneration patterns of S. fischeri and M. sulcata in East African coastal forests.