Factors Which Determine The Success Of Regreening In Gunung Kidul, Central Java


Affiliations

Bogor Agricultural University, Indonesia
Land Resources Agency of Yogyakarta Province, Indonesia

Abstract

This investigation was carried out in 39 sample villages located in 13 districts of Gunung Kidul Regency, Yogyakarta Province, Central Java. Tree species used in the regreening programme were Tectona grandis, Acacia auriculiformis, Paraserianthes falcatoria, Anacardium occidentale and Swietenia mahagoni. The highest percentage of success was reached by Tectona grandis (54.6%), followed by Acacia auriculiformis (51.6%), Anacardium occidentale (49.9%) and Swietenia mahagoni (44.6%). The least successful species was Paraserianthes falcatoria (36.5%). The species most preferred by the villagers were Tectona grandis and Acacia auriculiformis (each preferred by 37.8% of villagers sampled), followed by Paraserianthes falcatoria (13.9%) and Swietenia mahagoni (10.3%). No villagers expressed a preference for Anacardium occidentales. A multiple linear regression analysis showed that success in the regreening programme was influenced by the following factors: elevation, slope, effective soil depth, rockiness, the productivity of the degraded land, the percentage of regreened land, distance to the regreening site, road density, volume of fuelwood collected, and the per capita income of the villagers.