

**THE ANALYSIS OF LAND SUITABILITY  
OF SEVERAL TYPES OF FOREST TREES FOR REHABILITATION**  
(A Case Study in Kedung Gedang Sub Sub Let Oyo Sub Let Opak Watershed)

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**ABSTRACT**

The increasing need and competition for land uses, either for forestry or other interests, require careful and thorough consideration in the decision making of the most beneficiary of limited sources and eventually determine the conservative measures for land use in the future. The land use, which is inappropriate with land capability or the natural potential of the land, will reduce the ability of land in producing beneficiary results and various uses. The study was aimed to determine the level of land suitability of Sengon Laut (*Paraserianthes falcataria*), Teak (*Tectona grandis*), Formis (*Acacia auriculiformis*), Mahoni (*Swietenia macrophylla*), and Kayu Putih (*Melaleuca leucadendron*) in Kedung Gedang Sub Sub Let Oyo Sub Let Opak Watershed.

The study was carried out by matching the growth requirements of the forest trees with the quality and characteristic of land. The matching method refers to CSR/FAO Staff and Land Evaluation Manual (Petunjuk Teknis Evaluasi Lahan) by Soil Research and Agroclimate Institution, Bogor (Pusat Penelitian Tanah dan Agroklimat, Bogor). The analysis and spatial data processing was applied by using Geographical Information System.

The result of the study showed that there was no land that can be classified into S1. This is due to water availability, rooting media, nutrition retention, and slope. Furthermore, the results showed that the land is categorized into the critical area with severe degradation. Based on the results, it was obtained that land suitability of several types of forest trees can be used as the recommendation for the rehabilitation area. In detail, the forest trees followed by the area for rehabilitation are as follow: Formis with 6,001.3 Ha (34.6%), Kayu Putih with 5,903.2 Ha (32.1%), Mahoni with 3,371.8 Ha (19.5%), Sengon Laut with 1,965.2 Ha (11.3%), and Teak with 75.9 Ha (0.5%), and respectively.

Key words: land suitability, forest, and rehabilitation

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