Identification of Damage to Agathis dammara Trees at Situ Gunung Resort, Gunung Gede Pangrango National Park

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Abstract. Vitality is the vigor value of the trees in responding to environmental conditions. Determined vitality value was by calculating tree damage and crown condition. The *Agathis dammara* tree is a native Indonesian plant in the Situ Gunung Resort, Gunung Gede Pangrango National Park (TNGGP). This study aims to determine the vitality and value of the health status of *Agathis dammara* trees at Situ Gunung Resort, TNGGP. The research location is in the utilization zone at the Situ Gunung Resort, TNGGP, covering an area of 700 haBuilt observation plots based on the Forest Health Monitoring (FHM) cluster plot design as many as nine cluster plots. They have calculated tree damage based on the location where found the damage was in the FHM method. Calculated condition canopy based on five parameters visual crown. Assessment of tree health status uses a forest health assessment information system. The results showed that the location where found the most damage was at the root and lower stem (code 2) as many as 67 trees, dominated by liana damage (code 20) as many as 43 trees, with an average damage level of 35%. The live crown ratio 20-35%, crown density 25-50%, foliage transparency 50-70%, crown diameter 2.5-10 m, and dieback 0-5%. The value of the health status of the *Agathis dammara* tree has a value of 1.69-2.44. Thus, these conditions illustrate that the vitality and value of the health status of *Agathis dammara* trees at Situ Gunung Resort, TNGGP are in the medium criteria and category.

Keywords: *Agathis dammara, crown condition, Gunung Gede Pangrango, tree damage, tree vitality*.