

IMPACT OF COMMUNITY INTERVENTION ON GRASS STOCK AT GUNUNG MERAPI NATIONAL PARK, JAVA, INDONESIA

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ABSTRACT: Gunung Merapi National Park (GMNP), a new national park, was known its ecological functions and the local community depended very much on the area. The present study evaluated intervention level of the local community on the grass stock and proposed a scheme to minimize the intervention at GMNP. A line plot sampling method was applied based on the distance between the sub-village of Kaliadem and Jambu and the national park. Therefore, the sampling area was divided into five zones as I, II, III, IV and V and was analyzed using the biodiversity index. The distribution of species was calculated by agglomeration and dispersion index, the similarity in the pattern of the ecosystem by hierarchical clustering and the intervention of the local community by the intervention index. The scheme was created using the allometric model. The diversity index for trees in GMNP was very low (1-3 species) with dispersion index > 1.27 or agglomeration index < 2.15 . The ecosystem at zones II, III and IV possessed a similarity among themselves. Zones I and V had a different ecosystem trends from the other zones. Intervention index at GMNP indicated the interference of local community. Three schemes being worked out were Scheme 1 (implemented zone system GMNP version), Scheme 2 (intensification traditional zone) and Scheme 3 (synergistic schemes 1 and 2).

Key words : *Diversity, Intervention, National park, Scheme Opportunity*