

## PENGELOLAAN DAN PENILAIAN JASA LINGKUNGAN TAMAN NASIONAL BERBASIS MASYARAKAT DI LERENG SELATAN GUNUNGAPI MERAPI DAERAH ISTIMEWA YOGYAKARTA

### INTISARI

#### Oleh:

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Keberadaan kawasan TNGM telah lama dihadapkan pada persoalan intervensi manusia berupa aktivitas dan pemanfaatan SDA, khususnya masyarakat di desa penyangga TNGM bagian Selatan D.I Yogyakarta. Pemanfaatan sumberdaya alam dengan cara-cara yang melampaui potensi pemulihan alami dapat mempengaruhi ketersediaan jasa lingkungan di masa mendatang dan mengancam kelestarian TNGM.

Penelitian ini bertujuan untuk mengidentifikasi (1) jenis-jenis pemanfaatan oleh masyarakat di TNGM, (2) tingkat kerusakan lingkungan akibat pemanfaatan oleh masyarakat di TNGM, (3) menilai jasa lingkungan TNGM, dan (4) merencanakan strategi pengelolaan lingkungan berbasis masyarakat terhadap kelestarian lingkungan khususnya di TNGM bagian Selatan D.I Yogyakarta. Metode yang digunakan dalam penelitian ini adalah metode penelitian deskriptif kualitatif dengan cara interpretasi peta dan survei lapangan. Hasil wawancara masyarakat menggunakan analisis deskriptif kualitatif berdasarkan hasil *metode depth and free interview*. Strategi pengelolaan lingkungan dirumuskan dengan menggunakan matriks berdasarkan permasalahan pada setiap jenis kegiatan pemanfaatan.

Hasil penelitian menunjukkan kegiatan-kegiatan pemanfaatan masyarakat di kawasan TNGM adalah perumputan, pengambilan daun, perencekan, pembuatan arang, kegiatan petualang trail, perburuan liar, penambangan, serta pariwisata. Pada tiap zona di TNGM memiliki tingkat kerusakan lingkungan berbeda-beda, yakni: (1) Semua pemanfaatan di zona Pemanfaatan memiliki tingkat kerusakan ringan, (2) Zona Tradisional terdapat tingkat kerusakan berat pada kegiatan penambangan dan kerusakan sedang pada kegiatan pengambilan daun, (3) Pada zona Rimba perumputan dan aktivitas alam akibat erupsi Merapi memiliki tingkat sedang, sedangkan pengambilan daun memiliki tingkat kerusakan berat, (4) Pada zona Rehabilitasi perumputan memiliki tingkat kerusakan sedang. Jasa lingkungan ekologis dari kawasan TNGM yakni pengaturan tata air, penyerapan karbon, perlindungan keanekaragaman hayati serta penyedia wisata sangat baik dan berpotensi untuk dikembangkan. Nilai total jasa lingkungan ekonomi yang diperoleh masyarakat dari kawasan TNGM adalah Rp 895.046.000,00 pertahun. Strategi pengelolaan lingkungan berbasis masyarakat terhadap kelestarian lingkungan di TNGM dilakukan dengan cara pemanfaatan sumber daya alam berdasarkan daya dukung, dan daya tampung lingkungan hidup dengan memperhatikan keberlanjutan produktivitas lingkungan hidup, keselamatan mutu lingkungan, dan kesejahteraan masyarakat.

**Kata kunci:** *Jasa lingkungan, kerusakan lingkungan, Taman Nasional Gunung Merapi*

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## MANAGEMENT AND ASSESTMENT OF ENVIROMENTAL SERVICE ON NATIONAL PARK BASED COMMUNITY IN THE SOUTH PART OF MERAPI VOLCANO SPECIAL REGION OF YOGYAKARTA

### ABSTRACT

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The existence of Merapi National Park (TNGM) has been faced by intervention of natural resource utilization by humans that lives inside and around of its area for a long time, especially in the buffer zone at the northern part of DI Yogyakarta. In the future, the utilization methods that beyond natural recovery potential can lead to depleting availability of environmental services and endanger the sustainability of the park itself.

This study aimed to identify (1) various kinds of utilization activity by community in TNGM, (2) level of environmental destruction by utilization, (3) asses environmental services of TNGM, and (4) plan a community-based environmental management strategy for sustainability of the southern part of TNGM in DI Yogyakarta. We were using a qualitative descriptive method by map interpretation and field survey, which were then used as a base for spatial analysis of the utilization activity by community and environmental service of TNGM. We also analyzed the result of community interviews by a qualitative description method based on *depth and free interview* and *participatory observation*. At the end, we formulate the environment management plan by matrix based on the list of problems of each activity.

The result shows that utilization activity by community in TNGM consists of grazing, browsing, logging, charcoal production, trail adventure, poaching, mining and tourism. This activity resulted different damage level in each TNGM zone: (1) low damage level by every activity in Utilization zone, (2) high damage level by mining and medium damage level by browsing in Traditional zone, (3) medium damage level by grazing and natural process (eruption) in Forest zone, and (4) medium damage level by grazing in Rehabilitation zone. From the ecology point of view, TNGM provides various environmental services such as water management, carbon absorption, conservation of biodiversity, and tourism with high potential for future development. From economy side, each year these services provide up to Rp.895.046.000,00 for community around TNGM. From this data, we formulated a community-based environmental management plan for the sustainability of TNGM by the utilization of natural resources based on sustainable carrying capacity while taking notes on the sustainability of environment productivity, security of environment quality, and community's welfare.

**Keywords:** *Environmental service, Environmental damage, Mount Merapi National Park*

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