

EVALUASI JALUR PENDAKIAN SUWANTING BERBASIS RISIKO DAN POTENSI INTERPRETASI DI TAMAN NASIONAL GUNUNG MERBABU, KABUPATEN MAGELANG, JAWA TENGAH

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INTISARI

Jalur pendakian merupakan komponen penting dalam pengelolaan wisata alam di zona pemanfaatan taman nasional karena berfungsi sebagai akses utama, ruang interaksi pengunjung, dan media interpretasi. Jalur pendakian Suwanging di Taman Nasional Gunung Merbabu mengalami peningkatan jumlah pendaki yang signifikan serta memiliki karakter medan yang curam dan berisiko. Penelitian ini bertujuan mengkaji kondisi dan kesesuaian jalur pendakian, mengidentifikasi potensi bahaya dan tingkat risiko, serta mengidentifikasi potensi objek interpretasi di sepanjang jalur Suwanging.

Penelitian dilakukan melalui survei lapangan, observasi langsung, dan analisis spasial. Evaluasi kesesuaian jalur mengacu pada SNI 8748:2019 dan USDA (1968). Analisis manajemen risiko menggunakan metode Hazard Identification Risk Assessment and Risk Control (HIRARC) dengan standar AS/NZS 4360. Identifikasi objek interpretasi dilakukan terhadap komponen fisik, biotik, dan fenomena alam yang memiliki nilai edukatif.

Hasil penelitian menunjukkan bahwa jalur Suwanging didominasi kelerengan curam hingga sangat curam, perbedaan elevasi yang tinggi, serta kondisi permukaan tanah yang meningkatkan risiko terpeleset dan kelelahan pendaki. Beberapa segmen jalur memiliki tingkat risiko sedang hingga tinggi dan memerlukan pengendalian risiko yang terencana. Jalur pendakian juga memiliki potensi objek interpretasi yang mendukung edukasi keselamatan dan konservasi. Hasil penelitian ini menjadi dasar teknis bagi pengelolaan jalur pendakian yang aman, edukatif, dan berkelanjutan di kawasan konservasi.

Kata Kunci: jalur pendakian, taman nasional, manajemen risiko, interpretasi alam, pengelolaan kawasan konservasi

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EVALUATION OF THE SUWANTI HIKING TRAIL BASED ON RISK AND POTENTIAL INTERPRETATION IN MOUNT MERBABU NATIONAL PARK, MAGELANG REGENCY, CENTRAL JAVA

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ABSTRACT

Hiking trails are a critical component of nature-based tourism management in national park use zones, serving as access corridors, visitor interaction spaces, and interpretation media. The Suwanti trail in Mount Merbabu National Park has experienced a substantial increase in visitor numbers and is characterized by steep terrain and elevated safety risks. This study aims to assess trail conditions and suitability, identify potential hazards and risk levels, and examine interpretation potential along the Suwanti hiking trail.

The study employed field surveys, direct observation, and spatial analysis. Trail suitability was evaluated using the Indonesian National Standard SNI 8748:2019 and land suitability criteria based on USDA (1968). Risk management analysis applied the Hazard Identification, Risk Assessment, and Risk Control (HIRARC) method following the AS/NZS 4360 standard. Interpretation potential was identified based on physical, biotic, and natural features with educational value.

Results indicate that the Suwanti trail is dominated by steep to very steep slopes, significant elevation gain, and unstable surface conditions that increase the risk of slipping and physical fatigue. Several trail segments exhibit moderate to high risk levels, requiring planned risk control measures. The trail also contains interpretation features that support safety education and conservation awareness. These findings provide a technical basis for improving safe, educational, and sustainable hiking trail management in conservation areas.

Keyword: *hiking trail, national park, risk management, nature interpretation, conservation area management*

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