Evaluasi Kesehatan dan Penilaian Risiko Pohon Perindang di Ruang Terbuka Hijau Rumah Sakit Akademik
Universitas Gadjah Mada
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EVALUASI KESEHATAN DAN PENILAIAN RISIKO POHON PERINDANG DI RUANG TERBUKA HIJAU RUMAH SAKIT AKADEMIK UNIVERSITAS GADJAH MADA

Oleh:
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INTISARI

Rumah Sakit Akademik Universitas Gadjah Mada (RSA UGM) menerapkan konsep *green hospital* melalui ruang terbuka hijau (RTH) yang ditanami pohon perindang untuk mendukung kenyamanan lingkungan penyembuhan (*healing environment*). Namun, faktor penuaan alami memicu penurunan kekuatan struktural vegetasi yang berpotensi menyebabkan pohon tumbang secara mendadak di sepanjang area dengan aksesibilitas tinggi. Mengingat area rumah sakit didominasi kelompok rentan dan jalur vital ambulans, penelitian ini bertujuan mengevaluasi kesehatan dan menilai risiko pohon sebagai langkah mitigasi keselamatan. Inventarisasi dan pengambilan sampel menggunakan metode *purposive sampling* pada seluruh pohon dengan diameter minimal 10 cm. Kondisi kesehatan pohon dievaluasi terlebih dahulu menggunakan metode *Forest Health Monitoring* (FHM), kemudian pohon yang teridentifikasi tidak sehat dinilai tingkat risikonya menggunakan metode *International Society of Arboriculture* (ISA) serta dipetakan secara spasial. Hasil evaluasi terhadap 289 pohon menunjukkan 247 pohon (85%) sehat dan 42 pohon (15%) tidak sehat dengan kerusakan dominan berupa cabang kering dan patah. Penilaian terhadap 42 pohon tidak sehat menghasilkan tingkat risiko rendah sebanyak 21 pohon (50%), sedang 10 pohon (24%), tinggi 9 pohon (21%), dan ekstrem 2 pohon (5%). Hasil pemetaan menunjukkan sebaran pohon berisiko terkonsentrasi pada area beraktivitas padat dengan aksesibilitas tinggi seperti parkir motor, parkir mobil, dan akses keluar rumah sakit, yang secara langsung meningkatkan kemungkinan dampak dan konsekuensi terhadap target di bawahnya.

Kata kunci: Ruang Terbuka Hijau, *Forest Health Monitoring*, Penilaian Risiko ISA, Pohon Tumbang, Peta Sebaran.

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HEALTH EVALUATION AND RISK ASSESSMENT OF SHADE TREES IN THE GREEN OPEN SPACE OF UNIVERSITAS GADJAH MADA ACADEMIC HOSPITAL

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ABSTRACT

Universitas Gadjah Mada Academic Hospital (RSA UGM) implements the concept of a green hospital through green open spaces (RTH) planted with shade trees to support a healing environment. However, natural aging factors trigger a decline in the structural strength of vegetation, which has the potential to cause trees to fall suddenly along areas with high accessibility. Given that the hospital area is dominated by vulnerable groups and vital ambulance routes, this study aims to evaluate the health and assess the risk of trees as a safety mitigation measure. Inventory and sampling were conducted using purposive sampling on all trees with a minimum diameter of 10 cm. Tree health was first evaluated using the Forest Health Monitoring (FHM) method; subsequently, trees identified as unhealthy were assessed for risk level using the International Society of Arboriculture (ISA) method and spatially mapped. The evaluation of 289 trees showed that 247 trees (85%) were healthy and 42 trees (15%) were unhealthy, with the dominant damage being dry and broken branches. The assessment of the 42 unhealthy trees resulted in 21 trees (50%) classified as low risk, 10 trees (24%) as moderate risk, 9 trees (21%) as high risk, and 2 trees (5%) as extreme risk. The mapping results show that the distribution of at-risk trees is concentrated in areas with high activity and accessibility, such as motorcycle parking lots, car parking lots, and hospital entrances, which directly increases the likelihood of impacts and consequences for the targets below.
Keywords: Green Open Spaces, Forest Health Monitoring, ISA Risk Assessment, Fallen Trees, Distribution Map.

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