

NILAI KALOR HUTAN RAKYAT MENURUT STRUKTUR TEGAKANNYA

(Kasus di Dusun Nglanggeran Kulon, Desa Nglanggeran,
Kecamatan Patuk, Kabupaten Gunung Kidul, Propinsi D. I Yogyakarta)

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INTISARI

Krisis energi yang terjadi sangat mempengaruhi pemenuhan kebutuhan masyarakat. Energi alternatif berupa energi kalor pada tanaman menjadi salah satu solusi. Struktur hutan rakyat yang beragam belum diketahui tingkat optimalisasinya dalam menghasilkan kalor sehingga sulit untuk mengetahui potensi yang dapat dikembangkan untuk mendapatkan estimasi nilai kalor yang optimal. Penelitian ini bertujuan untuk mengetahui struktur hutan rakyat di Dusun Nglanggeran Kulon, mengetahui potensi kayu dari jenis tanaman yang mendominasi serta mengestimasi nilai kalor yang tersedia berdasarkan struktur tegakannya.

Metode dasar yang digunakan adalah *purposive sampling* pada responden yang memiliki tiga pola pengelolaan hutan rakyat. Nilai kalor diperoleh dari kandungan biomasa pohon menggunakan angka konversi nilai kalor. Struktur tegakan hutan rakyat dikelompokkan melalui pendekatan analisis kluster (*K-means cluster*). Pengklasteran tersebut dilakukan berdasarkan besaran tiap variabel penciri struktur tegakan.

Dari hasil penelitian diperoleh empat struktur hutan rakyat di Dusun Nglanggeran Kulon. Nilai kalor yang tersedia di Dusun Nglanggeran Kulon adalah sebesar 5.745.661.907 kkal. Potensi kayu Dusun Nglanggeran Kulon sebesar 1768,27 m³. Struktur tegakan nilai kalor hutan rakyat dengan estimasi nilai kalor tertinggi sebesar 138.111.816 - 284.809.661 kkal. Struktur tegakan dengan estimasi nilai kalor tertinggi dicirikan dengan dominasi jenis sonokeling, jumlah jenis yang beragam dan kuantitas pohon per hektar besar.

Kata kunci : energi, nilai kalor, struktur tegakan,

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**The Value of Heat in Community Forest
Based on The Structure of its Stands**
(Case in Rural District of Nglanggeran Kulon, Nglanggeran Village, District of Patuk, Gunung Kidul Residence, Province of D.I Yogyakarta)

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ABSTRACT

The crisis of energy which happening nowadays was very influencing the needs of people. The heat energy from plants was become one of alternative energy. The optimalization value on producing heat in community forest had not been known yet. It made the difficulties of knowing the potentation that could developed to get estimation of optimum value of heat. The aim of this researched was knowing the structure of community forest in rural district of Nglanggeran Kulon, knowing the potentation of wood from dominated plants and estimating the value of heat which available based on its structure of stand.

Basic method that used in this researched was purposive sampling from responden which had three designs in managing community forest. The value of heat was got from the implied of plants biomass which used the konversion numbers of heat value. Stand structure in community forest was formed through approximation of K-means cluster. Clusteritation was done based on magnification of characteristic stand structure variable.

The resulted of researched was four structures of community forest in Nglanggeran Kulon rural district. The value of heat which available in Nglanggeran Kulon rural district was about 5.745.661.907 kkal. The wood potentation in Nglanggeran Kulon rural district was about 1768,27 m³. The highest estimation value of heat on stand structure in community forest was about 138.111.816 - 284.809.661 kkal. Domination of sonokeling, total of various spesies, and big quantity of trees per ha were characteristics of the highest value of heat on stand structure.

Key words: Energy, heat value, stand structure

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