

**PENAKSIRAN POTENSI KAYU PERKAKAS DAN KAYU BAKAR DARI  
HUTAN RAKYAT  
(Studi Kasus di Desa Natah, Kabupaten Gunung Kidul)**

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**INTISARI**

Hutan rakyat merupakan salah satu bentuk penghijauan pada lahan milik penduduk, yang bertujuan sebagai alternatif pemenuhan kebutuhan akan kayu bakar dan kayu perkakas, meningkatkan kualitas lahan, melestarikan tanah, air dan lingkungan serta memberikan tambahan pendapatan kepada masyarakat. Penelitian ini bertujuan untuk menaksir potensi kayu perkakas dan kayu bakar di wilayah penelitian.

Metode pengambilan sampel yang digunakan adalah *Stratified random sampling*. Data penelitian meliputi data potensi hutan, data sosial ekonomi masyarakat, dan data pendukung yang relevan. Pengambilan data potensi dilakukan dengan pengukuran langsung di hutan rakyat milik responden, data sosial ekonomi diperoleh melalui wawancara, dan data pendukung diperoleh dari instansi terkait.

Persamaan alometrik yang digunakan untuk mengetahui besarnya kayu perkakas dan kayu bakar pada masing-masing jenis pohon berbeda. Pada jenis jati, volume kayu perkakas =  $0,0000145(D^2H)^{1,092372}$  dengan  $R^2 = 97,86 \%$  dan volume kayu bakar =  $0,000213(D^2H)^{0,740243}$ , dengan  $R^2 = 87,20 \%$ . Pada jenis akasia, volume kayu perkakas =  $0,0000112(D^2H)^{1,115633}$ , dengan  $R^2 = 97,83 \%$  dan volume kayu bakar =  $0,002177(D^2H)^{0,528439}$ , dengan  $R^2 = 81,36 \%$ . Pada jenis mahoni, volume kayu perkakas =  $0,0000216(D^2H)^{1,06923}$ , dengan  $R^2 = 98,97 \%$  dan volume kayu bakar =  $0,007218(D^2H)^{0,372366}$ , dengan  $R^2 = 91,59 \%$ . Hasil penelitian potensi hutan rakyat menunjukkan bahwa volume kayu perkakas diperoleh sebesar  $111,67 \text{ m}^3/\text{Ha}$  dan volume kayu bakar sebesar  $90,11 \text{ m}^3/\text{Ha}$  pada lahan pekarangan dengan nilai  $Lbds 15,58 \text{ m}^2/\text{Ha}$ . Sedangkan pada lahan tegalan, diperoleh volume kayu perkakas sebesar  $103,97 \text{ m}^3/\text{Ha}$  dan volume kayu bakar sebesar  $85,91 \text{ m}^3/\text{Ha}$  dengan nilai  $Lbds 15,80 \text{ m}^2/\text{Ha}$ . Persentase potensi kayu pada lahan pekarangan sebesar  $51,52\%$  dan lahan tegalan  $48,48\%$  dengan volume total hutan rakyat sebesar  $391,65 \text{ m}^3/\text{Ha}$ .

Kata kunci : hutan rakyat, kayu perkakas, kayu bakar, penaksiran potensi

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## THE ESTIMATION OF MERCHANTABLE AND FIRE WOOD POTENCY FROM COMMUNITY FOREST

(Case Study In Natah Village, Gunung Kidul Regency)

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Community forest is a farm of greening method in community owned land, which alternatively aimed to supply demand of merchantable and fire wood, to improve the land quality, to conserve soil, water and environment, and also to give additional income for people. The objection of this research was to estimate the merchantable and fire wood potency in this research location.

The sampling method used was *Stratified random sampling*. Data collected were forest potency, public social economic, and other supporting data. Potency data were collected by directly measuring respondents' lands, social economic data were gathered from interview, and supporting data were obtained from local government.

Allometric equation used to know the volume of merchantable wood and volume of fire wood for each different tree species. For teak, merchantable wood volume =  $0,0000145(D^2H)^{1,092372}$ , with  $R^2 = 97,86 \%$  and fire wood volume =  $0,000213(D^2H)^{0,740243}$ , with  $R^2 = 87,20 \%$ . For acacia, merchantable wood volume =  $0,000112(D^2H)^{1,115633}$ , with  $R^2 = 97,83 \%$  and fire wood volume =  $0,002177(D^2H)^{0,528439}$ , with  $R^2 = 81,36 \%$ . For mahagoni, merchantable wood volume =  $0,0000216(D^2H)^{1,06923}$ , with  $R^2 = 98,97 \%$  and fire wood volume =  $0,007218(D^2H)^{0,372366}$ , with  $R^2 = 91,59 \%$ . The result showed that merchantable wood volume equal  $111,67 \text{ m}^3/\text{Ha}$  and fire wood volume equal  $90,11 \text{ m}^3/\text{Ha}$  at yard, with tree density value  $15,58 \text{ m}^2/\text{Ha}$ . In dry field, merchantable wood volume equal  $103,97 \text{ m}^3/\text{Ha}$  and fire wood volume equal  $85,91 \text{ m}^3/\text{Ha}$ , with tree density value  $15,80 \text{ m}^2/\text{Ha}$ . Wood potency percentage at yard was  $51,52 \%$  and dry field was  $48,48 \%$ , with total volume of community forest  $391,65 \text{ m}^3/\text{Ha}$ .

Keywords : community forest, merchantable wood, fire wood, and potency estimation

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