

POTENSI BIOMASSA DAN KARBON *BELOW GROUND*

BAMBU AMPEL (*Bambusa vulgaris* Schard) DAN

PENGEMBANGANNYA DI HUTAN RAKYAT

Andra Ajrina¹, Ris Hadi Purwanto²

INTISARI

Bambu ampel merupakan salah satu jenis bambu yang banyak tumbuh di hutan rakyat Dusun Bolawen. Penelitian ini bertujuan : (1) Mengetahui kandungan biomassa dan karbon *bellow ground* bambu ampel, (2) Menghasilkan model untuk menaksir kandungan biomassa dan karbon *bellow ground* bambu Ampel, (3) Mengetahui potensi kandungan biomassa dan karbon *bellow ground* bambu Ampel serta serapan CO₂ pada hutan rakyat Dusun Bolawen, (4) Mengetahui pengembangan bambu ampel di hutan rakyat Dusun Bolawen berdasarkan hasil inventarisasi dan wawancara di lapangan. Metode yang digunakan dalam penelitian adalah metode destruktif (pemanenan) untuk penyusunan allometrik biomassa dan karbon. Kandungan biomassa diperoleh dengan mengeringkan sampel hingga berat kering konstan. Kandungan karbon dianalisis melalui metode *Walkey and Black*. Pengembangan bambu ampel dianalisis berdasarkan hasil wawancara. Hasil penelitian diperoleh rerata biomassa *bellow ground* sebesar $(5,27 \pm 0,551)$ kg dan karbon *bellow ground* sebesar $(2,11 \pm 0,26)$ kg. Persamaan allometrik dari korelasi Dbh dengan biomassa dan karbon *bellow ground* adalah Biomassa = $0,203(\text{Dbh})^{1,627}$ ($R^2 = 0,830$) dan karbon = $0,065(\text{Dbh})^{1,733}$ ($R^2 = 0,765$). Potensi biomassa *bellow ground* bambu ampel sebesar $(240,40 \pm 10,50)$ Ton/ha, potensi karbon sebesar $(96,27 \pm 4,20)$ Ton/ha, dan serapan gas CO₂ sebesar $(353,31 \pm 15,50)$ Ton/ha. Pengembangan bambu di Dusun Bolawen sangat terbatas, maka diperlukan inovasi pengembangan bambu salah satunya yaitu sosialisasi dan pelatihan pengolahan bambu menjadi produk bernilai ekonomi tinggi.

Kata Kunci : biomassa, karbon, bambu ampel

¹Mahasiswa Fakultas Kehutanan Universitas Gadjah Mada Jurusan Manajemen Hutan

²Dosen Fakultas Kehutanan, Universitas Gadjah Mada

**POTENTIAL BIOMASS AND CARBON BELLOW GROUND OF
BAMBOO AMPEL (*Bambusa vulgaris* Schard) AND
DEVELOPMENT IN COMMUNITY FOREST**

Andra Ajrina¹, Ris Hadi Purwanto²

ABSTRACT

Bamboo ampel is one of bamboo species that much grown in the community forest Bolawen Hamlet. The objectives of this research are: (1) Calculate the content of biomass and carbon bellow ground bamboo ampel, (2) Creating a model to estimate biomass and carbon bellow ground for the kind of bamboo Ampel, (3) examine the potential of biomass and carbon bellow ground bamboo ampel and absorption of CO₂ in the community forest Bolawen Hamlet (4) analyzing development of bamboo ampel in forest community based inventory results and interviews on the field. Methods used in this research is a method of destructive (harvesting) to compose allometric of biomass and carbon. The content of biomass obtained by drying the samples the weight of dry constant. Any carbon content analysis throught a method of walkley and black. Development of bamboo ampel analyzed based on interview. The research results that the average of biomass and carbon samples bellow ground bamboo ampel: Biomass: (5.27±0.551) kg and carbon: (2.11±0, 26) kg. Allometric equation for relation between Dbh and Biomass, carbon in bellow ground bamboo ampel: Biomass= 0.203 (DBH) 1,627 (R= 0.830) and carbon= 0.065 (DBH) 1,733 (R²= 0.765). Potential result of biomass bellow ground bamboo ampel are (240.40±10.50) Ton/ha. Potential result of carbon are (96.27±4.20) Ton/ha, and the absorption CO₂ are (353.31±15.50) Ton/ha. Development of bamboo in Bolawen hamlet is very limited, so it was required development inovation of bamboo such as socialization and training of making bamboo product to be high economic value.

Keywords: biomass, carbon, bamboo ampel

¹Student of Forestry Faculty, Universitas Gadjah Mada, Forest Management Departemen

²Adviser: Lecture of Forestry Faculty, Universitas Gadjah Mada