

THE POTENTIAL AND DISTRIBUTION OF NATURAL REGENERATION IN LOGGED OVER AREA WITH STRIP PLANTING METHOD AT PT SARI BUMI KUSUMA, CENTRAL KALIMANTAN

By Odjar Sarbono*

Abstract

The application of silvicultural system is one of the important actions in forest conservational management. PT Sari Bumi Kusuma is one of forest company that applies Strip Planting Method. Faced with plantation target that has to be met, natural regeneration management calls attention to the provision of seedling that originate from the natural regeneration. The purpose of this research was to learn the potential of natural regeneration and its distribution, especially for commercial species (Dipterocarpaceae) in the former logged over area.

This research was conducted in 1999 (Et+10), 2004 (Et+5), and 2008 (Et+1) logged over area. The sample procurement in each location was done in 100 x 100 m Permanent Sample Plot (PSP) with three replication for each of the locations. This sample procurement was done by nested sampling method with 25 sample plot in every PSP. The potential analysis uses the formula of Important Value Index (IVI), Diversity Index (H'), and Richness Index (D) formula, while the distribution analysis uses the formula of Dispersion Index (ID).

The result of IVI's calculation shows that the highest potential of commercial natural regeneration to support seed availability was at Et+1 with the number of individual seedling and sapling were 31 individu/ha and 23 individu/ha. The IVI of the highest poles were at Et+10 with 28 individu/ha and at tree level were at Et+5 with 53 individu/ha. The highest diversity of commercial species for tree, pole, and seedling level were at Et+1 with the scores consecutively were 1.44; 1.14, and 1.80. The highest diversity of commercial species for sapling level was at Et+5 with 1.95 as the score. The dispersion of the nature regeneration's commercial species at the research location was random, uniform, and clumped. The most dispersion path that was found in location was random dispersion, followed by uniform dispersion and then clumped dispersion.

Keyword : Potential, distribution, regeneration, logged over area, Dipterocarpaceae.

* Student of Silviculture Department, Faculty of Forestry, Gadjah Mada University

BAB I

PENDAHULUAN

1.1. Latar Belakang

Indonesia merupakan negara yang dilewati garis khatulistiwa dan terletak di antara benua Asia dan Australia. Di Indonesia dapat ditemukan berbagai macam tipe habitat, mulai dari hutan hujan tropis di Sumatra dan Kalimantan, padang rumput savana di Nusa Tenggara, barisan karang di Sulawesi, hingga puncak salju di Papua (MacKinnon, 1992). Tingginya keanekaragaman hayati di Indonesia menempatkan negara ini sebagai salah satu negara yang memiliki keanekaragaman hayati tertinggi di dunia bersama Brazil di Amerika Selatan. Kedudukan ini menjadi penting bagi kegiatan konservasi keanekaragaman hayati dunia.

Tindakan-tindakan yang bertujuan untuk melestarikan keanekaragaman hayati harus dilakukan agar tidak ada komponen yang hilang. Setiap kegiatan pemungutan hasil hutan dengan berbagai metode akan menimbulkan kerusakan terhadap ekosistem hutan, baik itu kerusakan yang besar atau kecil serta kerusakan yang langsung dan tak langsung. Pada berbagai perusahaan kehutanan, penerapan sistem tebang pilih akan berpengaruh pada berbagai hal seperti tegakan tinggal, potensi tebang berikutnya, tanah hutan, iklim mikro, permudaan alam, unsur hara dan biodiversitas flora dan fauna (Weidelt, 1995).

Hutan tropis Indonesia sebagai modal pembangunan nasional memiliki manfaat yang nyata bagi kehidupan bangsa Indonesia, baik manfaat ekologi,

