SUMMARY

SULISTYO ARIEBOWO. Forest is one of potential natural resources owned by Indonesia which have various function and it is significant for human lives so that the forest have to managed efficiently and effectively in order to keep sustainability. Related with the forest sustainability, Government of Indonesia issued a policy in forest concession which stated every concession who hold Forest Plantation of Wood Production Permits (IUPHHK) should have silviculture system in their forest production activities.

Selective Cutting and Line Planting Silvicultural System (TPTJ) with intensive silviculture technique in natural forest have been applied in some concession. In other hand, this Selective Cutting and Line Planting Silvicultural system (TPTJ) have some benefits such as easy to control the plant, suitable site, and some species from Dipterocarpaceae that could not adapt with open canopy are possible to be developed.

In order to obtain a clear information about the influence of Selective Cutting and Line Planting Silvicultural System (TPTJ) toward biophysical environment so that it is necessary needed to do a research concerning with the comparison of forest structure and composition in the post harvest area of Selective Cutting and Line Planting Silvicultural System (TPTJ) between age of 4-9 years in Central Kalimantan.

Research conducted from May until June 2009 in PT. Sari Bumi Kusuma areas. Data of vegetation collected using research plot method which size 100 x 100 (1 ha) and it has 2 observation line. Then, every line divided into 5 blocks with using quadratic method where the data collected consist of species name, species quantities, and diameter of pole and tree. Meanwhile, data collected for sapling and seedling was species name and species quantities.

Research data analysis consist of density, frequency, dominance, and INP also trees diversity and cluster analysis. Generally, non-comercial species dominated almost in every research plot for every age from seedling, sapling, pole and tree. For the whole research plot, the distribution of tree diameter class resulted the negative exponential curve or J-inverted curve. The tree diversity are high which is remain about 2-3. For the natural seedling, the diversity sapling and pole are moderate which is remain about 2. In other result, the diversity of seedling are low which is remain about 1.8.

Key words: analysis vegetation, quadratic method, diversity species, TPTJ silviculture system.