

Roles of Rubber Agroforestry to Support the Sustainability of Protection Forest through Community Forestry Program

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Abstract. Community Forest (CF) in Way Kanan (WK) District aims to improve the welfare of the community around the forest while maintaining the preservation of forest functions. Specifically, the majority of plants in this protected forest are rubber which is main commodity of the WK so that the sustainability of this plant is important. The research carried out at CF area of Jaya Lestari, Mangga Mulyo, and Panca Tunggal, aims to analyze of social economic and ecological variables of CF in managing agroforestry rubber towards to protection forest sustainability. The analysis of the research results uses the quantitative methods and the multiple linear regression analysis as well as carbon analysis through biomass calculations. The results show that the 3 CF groups has a significant effect on the income level. In addition, the variable of the number of plant types, the CF area and private forest area, also cattle ownership are also significantly different. As for the ecological aspect, it is known that there are 5 variables that are significantly different, namely altitude, temperature, humidity, trees diameter, and canopy. The results of the carbon store analysis show that the total carbon store is 1,543.16 ton or 96.45 ton/Ha.

Key words: rubber agroforestry, community forestry, socio economic variables, ecological variables, sustainable community forestry