Plants Production of Agroforestry System

Plants Production of Agroforestry System in Ciliwung Riparian Landscape, Bogor Municipality

YB Prastiyo, RL Kaswanto and HS Arifin

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Abstract

Settlement occupation in Ciliwung riparian zone along Bogor Municipality has reduced vegetation formations of agroforestry, such as kebun campuran (mixed gardens), talun (forest gardens), and pekarangan (home gardens). These processes have reduced plants production, one of riparian landscape services. The purpose of this paper is to know the plant production capacity of agroforestry land use, as a basis for arranging the management of agroforestry landscape in Ciliwung riparian, Bogor Municipality. The study used 14 sample plots (4 taluns, 5 mixed gardens, 5 pekarangans) with purposive sampling method, to plants production analysis of agroforestry land use. Furthermore, the calculation of Land Equivalent Ratio (LER) is conducted to know land productivity. The agroforestry system in Ciliwung riparian, Bogor Municipality has highly potential plant production. The talun has arrange area of 38.77 ha and the average plant production 49.20 Mg/ha, total plant production potency of 1907.48 Mg. The mixed garden has arrange area of 9.44 ha and the average plant production 65.41 Mg/ha, total plant production potency of 617.47 Mg. Meanwhile, the pekarangan has arrange area of 17.53 ha and the average plant production 48.77 Mg/ha, total potential plant production is 854.94 Mg. The talun and mixed garden have high productivity with LER of 1.40 and 1.81, respectively. Where as, the pekarangan has low productivity with LER of 0.96. Agroforestry practices are able to provide better plants production, so that to ensure the stability and sustainability of
landowners' income.

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