

KANDYAN FOREST GARDEN: AN AGRO-FORESTRY SYSTEM WITH HIGH POTENTIAL FOR LIVESTOCK PRODUCTION

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Kandyan Forest Garden (KFG), is a traditional cropping system practiced for centuries. This is considered as the oldest 'agro-forestry' system in Asia. KFG's located in Kandy centered districts with an altitude of 450 - 1050 m, and receiving an annual rainfall of >2400 mm. The topography of the land is sloping with a gradient of 5° - 25°. The land holdings vary from 0.4 - 1.75 ha. (mean = 0.7 ha), with sufficient idle family labour for alternate income generation opportunities. This perennial, tree-based home garden system has high floristic diversity. The perennials are composed of spice, timber, fruit, food, medicinal and shade trees. The density of perennial trees ranged from 60 - 340 per ha. (mean = 196), and contains at least 12 different species. The inhabitants are traditional and conventional farmers with wide experience in farming. Many of them have been keeping livestock as a secondary source of income through generations. The climate is conducive for exotic breeds and have high market potential for livestock products. The perennial trees provide excellent tree fodder. Other than the major perennials, the live-fences, supports and shade trees also provide green fodder year round. The annual dry biomass production from perennials range from 2500 - 18000 kg, with a crude protein of >16% and digestibility of >50%. The perennial tree fodder acceptance is high by goats than cattle and buffalo. The fodder potential can be further improved by introduction of simple agricultural techniques such as 'Sloping Agricultural Land Technology' (SALT). This also improves the soil conservation. This system is stable and highly sustainable. The potentials for income generation using the resources within the system is enormous. The most important factor is that to maintain the stability and the sustainability of the system.