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Prevalence and Species Composition of Live Fences in Village Homegardens: A Study in the Low Country Wet Zone of Sri Lanka

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Abstract

Live fences are abundant green infrastructure in farmlands and homegardens. This practice however, is declining due to drivers of urbanisation. The aims of this study were to identify different types of live fences and to evaluate their patterns of prevalence in homegardens in a conventionally agricultural, but rapidly urbanising area of Sri Lanka. The study was conducted during 2014 in 80 homegardens randomly selected from Divulapitiya D.S. division of Gampaha district, located in the low-country wet zone. Smallholder coconut is the main agricultural activity of the area. Data on vegetation types, species composition, land extent, length of fences, and information on local knowledge systems on live fences were collected using a structured survey schedule.

Thirty dominant plant species were found in live fences in the area. Sudu Koppa (*Polyscia balfouriana*), Gliricidia (*Gliricidia sepium*), and shoe flower (*Hibiscus rosa-sinensis*) respectively accounts for 19 %, 15 % and 9% of all trees in live fences. 60% of plant population generated benefits only as ornamental foliage while 24%, and 15% of it respectively are multi-purpose trees and flower plants. About a half of respondents indicated that the low cost of establishment as the main reason for selecting live fences. Respondents believed that benefits of live fences cannot be valued solely by monetary terms. 70% of respondents identified need for continuous pruning as the main problem in managing a live fence. Majority of households were willing to replace live fences with other artificial fences or boundary structures if, needed and the capital investments were not constrained. Enhancing the knowledge of global benefits and interventions to increase and integrate potential benefits to the rural economy will contribute to abate the trend of declining practice of live fences and sustain this age-old sustainable environmental friendly practice.

Keywords: Ornamental hedges, Species composition, Multi-purpose trees, Urbanisation, Green infrastructure, Gampaha district