Structure, species composition and function of homegardens in Kandy and Vavuniya

P Loganathan*
Department of Biological Science, Faculty of Applied Science, Vavuniya Campus, University of Jaffna, Jaffna

The objective of this study was to evaluate the structure, species composition and function of homegardens in the wet zone and dry zones of Sri Lanka. Homegardens from Kandy and Vavuniya were selected to represent the wet and dry zones of Sri Lanka, respectively. A structured questionnaire was used to collect information from 120 households from Kandy and Vavuniya. The total number of species and individuals were counted in each home garden and species diversity index was calculated using Shannon- Wiener index (H). More than 237 useful plant species (68 perennial food species, 31 annual food species, 51 medicinal species, 27 timber species, 18 fire wood and other ornamental species from 42 genera) were identified in the Kandyan forest garden and more than 141 useful plant species (36 perennial food species, 23 annual food species, 27 medicinal species, 10 timber species, 11 fire wood and other ornamental species from 34 genera) in Vavuniya homegardens. The total number of species per garden ranged from 32 to 88 with a mean of 56.9 and 5 to 52 with a mean of 18.2 in Kandy and Vavuniya, respectively. The species diversity index of the Kandyan forest garden is 3.93 and 2.97 in Vavuniya home gardens. The floristic composition of Kandyan forest garden was higher than Vavuniya home gardens due to distinct climatic disparities. It provides a place for species conservation and to conserve threatened species like ebony (*Diospyros ebenum*) and *Syzygium umbrosuma* and rare species like honey tree (*Madhuca longifolia*). In addition to plant species, home gardens provide a place for birds, livestock and soil fauna. Species density increased with decreasing land size in both study areas and this shows that most gardeners try to optimize their land by conserving many species.