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“Filling gaps and removing traps
for sustainable resource management”

Agrobiodiversity of Homegardens in Pyay District, Myanmar

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Abstract

This survey was conducted in 96 randomly sampled home gardens across eight villages of the Thegon Township situated in Bago region. The research aimed to assess the species diversity of cultivated and wild plants to uncover typology of local home gardens and finally to document traditional botanical knowledge on useful plants and plant management practices. Data were collected during August and September 2018. The survey included a household survey, vegetation survey and plant artefact interviews. A total number of 246 species belonging to 70 botanical families were identified and the value of Shannon-Wiener index is ranging from 0.1 to 2 with an average value of 1.03. The best-represented families with the highest number of species were Fabaceae, *Euphorbiaceae*, Rutaceae, Zingiberaceae, Apocynaceae and *Asteraceae*. We identified 63 species as an ecologically important species. In our study area, type and structure of local home gardens for all households was a combination of subsistence and market-oriented gardens with different levels of commercialisation. There was a positive correlation between the number of plant species and home garden size, natural vegetation, species diversity, and a number of species commercialised. On the other hand, the home garden age was not correlated with species diversity. The results showed that there were no significant environmental and management effects on species diversity. In most of the home gardens, plants were managed by both chemical and biological control methods. While biological methods were applied for most of the crops, agrochemicals were applied only in insect pests control of marketed crops to improve the cash crop yields.

Keywords: Biodiversity, ethnobotany, traditional knowledge, useful plants