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Food Species Richness and Commercialisation of Homegardens in Indonesia: Example of Central Sulawesi and West Sumatra

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Abstract

Homegardens represent old and rather subsistence-based farming systems, which play an important role in livelihood especially in rural as well as in peri-urban areas. Food security is often being cited as a one of the most crucial roles of homegardens. Globally, they are famous for their rich diversity of annual and perennial plant species. Nevertheless, the structure, species composition and their level of commercialisation differ according to different physical, ecological, cultural and socioeconomic factors. The aim of our study was to document food species richness and their level of commercialisation with respect to homegarden and household characteristics. Data were collected among 115 households, 71 around city of Palu in Central Sulawesi, 44 around city of Padang in West Sumatra. Data were collected via direct observation and interviews with focused households. Convenient purposive sampling method was used to identify suitable respondents. Shannon-Wiener, Margalef and Simpson diversity indexes were used to calculate agrobiodiversity. Multiple linear regression was applied to identify potential effects of household geophysical and socioeconomic characteristics on homegarden structure, species richness and level of commercialisation. A total number of 71 species was distributed across 39 families. A typical homegarden in our study was 1,834 m² large and 28 years old, these from Central Sulawesi were smaller and younger compare to those in West Sumatra. Differences in valuation of agrobiodiversity, aesthetic role and ecological benefits were also observed among focused households in our two study sites. Preliminary results shows effects of gender on species composition and commercialisation. Dependent members, age, distance to city centre, terrain, size and age of homegardens influenced species structure as well.

Keywords: Agro-biodiversity, attitudes, geophysical characteristics, household characteristics, multiple linear regression, perceptions