

Understanding biodiversity in homegardens embedded in landscapes dominated by commercial monoculture agriculture is critical for sustainable management of agrobiodiversity and meeting rural households' needs in the face of global changes. We assessed agrobiodiversity in the 120 homegardens and its contribution to rural household livelihood strategies within a commercial monoculture sugarcane cultivation land matrix in eastern Uganda. We recorded a total of 68 plant species from 46 genera representing 27 families. Species richness spanned 6 to 19 species, and  $\alpha$ -diversity ( $H'$ ) ranged from 0.6 to 2.3; with 86.67% of the homegardens having  $H' > 1$ . Species composition differed significantly (global  $R_{ANOSIM} = 0.153$ ,  $p < 0.001$ ) among the villages. The most important and commonly maintained plants were those that provided food, fuelwood and money income and included *Zea mays* L., *Manihot esculenta*, *Phaenolus* spp., *Coffea* sp., *Musa* spp., *Ipomea batatas* and *Artocarpus heterophyllus*. Most of the crops cited as useful by households were also frequent and visible in many of the homegardens. Although homegardens still hold some valuable plants, there is also loss of important plants from the agricultural system including cowpeas, soya beans, bambara groundnuts, finger millet, cotton, aerial yams and oysternut essential for sustaining household livelihoods. This loss, precipitated by increased land-use/cover change to commercial sugarcane plantations threatens agrobiodiversity conservation and the benefits households derive from homegardens. Our findings underline the importance of homegardens in the conservation of indigenous agrobiodiversity, and indicate that with the continued expansion of commercial sugarcane cultivation this opportunity may be lost.