D-37 A survey of socio-economic and biophysical conditions of the Kandyan homegarden system and the Dry Zone homegarden system in Sri Lanka

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A survey was carried out in 1994 in 2 villages in the Kandy and Anuradhapura districts to compare the bio-physical and socio-economic conditions of the Kandyan and dry zone homegardens with a view to compare the merits, constraints, weaknesses, extrapolatability, potentials for improvement and research needs. The Kandyan villages, Ihala-Kobbekaduwa and Owala were located in the Yatinuwara Divisional Secretariat (D.S.) Division of Kandy District and the dry zone villages, Padikaramaduwa and Nikewewa were located in Huruluwewa D.S. Division of the Anuradhapura District. Divisions within the study districts and the villages within each division were selected randomly. About 30-40 households were selected from each village at random. The data were collected by way of questionnaire surveys with individual interviews. The method of selection of sample, preparation of the questionnaire survey and conduct of the survey were based on International Council for Research in Agroforestry guidelines.

The study revealed that there were significant differences in both bio-physical and socio-economic parameters between the Kandyan homegardens and dry zone homegardens. Although plants belonging to palms, fruits, timber, yams, vegetables and ornamentals were present in both areas, the Kandyan homegardens harbored a higher species richness and plant density. Spices were present only in Kandyan homegardens. About 77 - 90% of the farmers in the Kandyan region reared cattle, goats, buffaloes and carried out beekeeping while in the dry zone only 40 - 60% of the farmers had animals. About 60% of the homegardens in the Kandyan villages had larger (6 - 8 persons) household but had only less than 1/4 acre of land compared to the dry zone farmers where in 67 - 80% of the instances the household size was small (3 - 5) but almost all the gardens were more than 1/4 acre in size. The income from each homegarden taken as an average in the Kandyan region was between Rs. 50,000 - 100,000 per annum while it was less than Rs. 4500 per annum in the dry zone. This was mainly due to the low species composition, especially with regard to cash crops, drought, inadequate technical advancement and edaphic problems in the dry zone. Further, the financial aid facilities and extension services were in a sub-optimal level in the dry zone.

From the study it was clear that there is great potential for the improvement of dry zone homegardens by way of soil improvement, improvement of the availability of extension services to reach out to all the farmers to assist them in species selection and their spatial arrangement within the garden and other necessary technical know-how, improvement of markets and other subsidies. Further there is a need to strengthen research on the structure and function of homegardens as a system in order to improve the short and long term productivity.