

## **Agro-Forestry Practices In Tea Cultivation Areas With Special Reference To Nuwaraeliya, Sri Lanka**

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Agro-forestry is an activity that combines production on the same plot of land, with annual agricultural activities and delayed long term production by trees. The hill country plantation area is mainly concerned with tea crop expecting high production. This rich agro-forestry system is created consisting of several practices. Indian Tamil community acts as the labor force for the production of tea. Objectives of the study are, to identify the flora species which support tea cultivation and their role sustain in sustainability, to study about the agro-forestry practices developed by communities in estate sector and to understand the institutional contribution for development of agro-forestry practices in tea estate sector. Data was collected by direct observation, interviews and questionnaire survey. Secondary data were collected by using reports, books and articles and important web pages. Fifty samples were selected to fulfill the objectives of the study. Result was that Sevendara (*Vetiveria zizanioides*), Chinese grass (*Miscanthus sinensis*), Flower species were used to control the negative effect on soil fertility by erosion. Trees like Era Badu (*Erythrina Fusca*), Ipil Ipil (*Leucaena leucocephala*), Sakota or Sabokku (*Gravillea banksii*), Ladappa (*Gliricidia sepium*), coffee (*Coffea*), are the shade trees which introduced to tea estates. Nitrogen requirement for the tea plants also fulfilled by some trees namely, Ladappa and Era badu. Varieties of Mana like Goutemala, Pengiri mana (*Cymbopogon nardus*), Lemon Grass (*Cymbopogon cirtratus*) increase soil fertility and reduce the number of harmful insects in the soil layer. Plants like Croton (*Codiaeum variegatum*), Coffee, and Mexican sun flower (*Tithonia diversifolia*) species develop strong boundary system. Home gardening and Animal husbandry activities are common agro-forestry practices in the estate sector. Government had introduced some development programs to increase the livelihood condition through agricultural activities like inland fishery programs, livestock programs and home garden concept. Besides, non-governmental organizations also supported the communities by giving goats or cattle to develop the home base economic activities. Home garden concept is not a well-organized activity in the estate area because, as people explained, they do not have much time to sustain home gardens as a result of their busy life. Stakeholder awareness rising programs needed to be increased in these areas.

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