ABSTRACT

A survey on the factors affecting sustainability in the coconut triangle of Sri Lanka revealed that the two farming systems, one for growing cash crops and the other for subsistence crops experiencing severe pressures on the land that could affect sustainability. The pressures could be attributed to the marginalization of the peasantry as a result of the plantations which British Colonial Government started in mid nineteenth century and the recent the rapid growth of population in the coconut triangle combined with the policies pursued by the Sri Lankan Government after independence. This has resulted the progressive dwindling of the land person-ratio in the region, both in quantitative and qualitative terms.

Measures taken by the Sri Lankan Government to reduce landlessness and rural unemployment in the region by opening up of new lands on the coconut cultivation areas resulted further aggravation of problems due to erosion and leaching of soils because of the land use practices adopted in these newly opened up lands. In addition, a range of social, economic and political processes at the local level too appear to have a tremendous impact on farming systems and the ability of farmers to generate a desirable level of income from farming.

The two villages studied are located in the Chilaw Divisional Secretariat Division of the Puttalam District. The villages are in the distance of more than 10 kilometers from each other and are similar in physical features and climate wise. However, the very agro-climatic elements of Mugunuwattawana located at a country side of the country than Kakkapalliya has been suited better for the cultivation of intercrops. The natural ecological features of the locality enabled the small holder land operators of the village to produce a range of vegetables like brinjal, chilies, ladies fingers, luffa,sweet potatoes, and manioc for the market and enjoy a competitive edge over other food producing areas of the country. Manioc cultivation is considered as an import substitution food crop by the Government. The state has extended its patronage to the villagers of Mugunuwattawana for growing intercrops in the village by providing inputs, subsidies and import protection measures. The farming system in Mugunuwattawana has been established by the

Government to relieve landlessness, rural unemployment and to increase food production.

A very basic problem in the system of farming in Mugunuwattawana is that it leads to high erosion and leaching of topsoil that arise from cleaning weeds which is required by this system of farming. It is unsuitable for coconut plantation. On the other hand, this farming system by producing a range of vegetative and root crops for sale in rapid succession also exploits the available soil nutrients heavily. To compensate rapid deterioration and loss of soil quality and nutrients, farmers tend to apply farmyard manure like basal and heavy doses of chemical fertilizers. The exhaustion of the soil under inter crop and vegetable cultivation is also aggravated by the heavy application of agrochemicals to protect the plants that are grown in a host environment.

Almost all the inputs used in this farming system except the labor and lands are not obtained locally, while some such as seeds, inorganic fertilizer and agrochemicals are imported. Further to these dependencies on inputs, the farming population also depends on the market for staple and subsidiary foods and fuel wood for cooking and thus their vulnerability, in addition to the deterioration of the natural resources base it self, is connected to the market supply and demand situation.

Farming in Kakkapalliya is different and is characterized by animal husbandry, the system which produces animal products mainly for consumption and for sale. Cattle and buffaloes are reared on small scale for draught power and for milk purposes and also less dependent on inputs provided via the market system. The most intensive input used in the production of intercrops is labor and is supplied by the family in combination with a system of family labor. Intercrops are produced locally and shared, bartered or sold,

However, there are number of problems faced by the farming system in Kakkapalliya. In the first place, the limited availability of lands which is inequitably distributed. To meet the demand of land in the face of a burgeoning population, the lands are fragmented into miniature holdings reducing their economic viability. The tenant forms cultivated such as restricting crop diversification. Complex tenure system would also disqualify tenant holder from obtaining Institutional loans for crop diversification.

Ecological elements such as temperature and soils are relatively less suitable for vegetable and intercrop cultivation.

In addition to the difficulties of diversifying to achieve an economically more productive system of agriculture, it appears that there are problems in retaining in the existing production base. For instance, lands under this farming system continue to decline by the process of modernization where the existing agricultural lands are converted to houses and townships yet with little direct benefits to the farming population. Also the lack of technological innovation suitable for increasing productivity of existing land has meant that agriculture has become much less rewarding as an occupation. While the system of farming is dependent on heavy labor inputs at peak times, traditional methods used for labor mobilization are under stress in the face of on-going social changes. Also other traditional, social and institutional forms that have been helpful in the management of locally available resources are continuously under stress and these have debilitating effects on the sustainability of the farming system.

The study reveals that, apart from the stresses brought about by localized factors like increasing population, reduction in carrying capacity of the available lands, there are pressures executed through the changing social dynamics, external factors such as the impact of the policies of the Government which felt as the natural resource farming base and are diminishing through attempts at modernization which have a profound effect on the farming system. Thus, it appears that in this particular context the human-environmental resource problem is a much more complicated one for which there are no simplistic explanations.