

IMPACT OF SOCIO ECONOMIC FACTORS ON SOIL FERTILITY PARAMETERS OF
DIFFERENT LAND USE SYSTEMS IN WALAPANE DIVISIONAL SECRETARIAT (DS)
DIVISION

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Soil fertility refers the capacity of soil to provide plant nutrients and other soil based factors in an optimum level for the growth of plants. Soil erosion, crop removal and leaching of nutrients can be considered as major causes for soil fertility depletion in agricultural lands. Limited availability of additional land for crop production along with declining the yield of major food crops due to low soil fertility are major challengers to be faced with increasing rate of the population.

There is an argument that the socio-economic factors of households affect soil fertility parameters of their farm allotments. Therefore this study was conducted to determine the impact of socio economic factors on soil fertility of different land use systems in Walapane Divisional Secretariat Division. Different locations of four *Grama Niladari* divisions (GND) were purposely selected to carry out the study.

A household survey was conducted, to evaluate the impact of socio economic factors on soil fertility and sixty three randomly collected soil samples were analyzed to assess the level of plant nutrients (i e: N, P and K) and the organic matter content of the respective farm allotments.

The results of the study revealed that the levels of N, P and K presence in the soils of different land uses were significantly different. The analysis was done using SAS program. A positive co-relation was observed between household income and N, P, K levels of vegetable based farming systems. Another co-relation was observed between land tenure and nutrient levels of different land uses. However, there were no significant co-relations between soil fertility parameters and other socio-economic factors such as education level, awareness on soil conservations and gender. The results of the study indicate that socio-economic factors as land tenure, household income and different land uses play a vital role on the level soil fertility parameters of farm allotments in Walapane DS division.

Key words: Soil fertility, Soil conservation, Soil erosion, Socio economic factors, Organic matter, Electrical conductivity, Total N, Available P, K