

Effectiveness of soil conservation measures in tea smallholdings in mid and low country in Sri Lanka

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Tea smallholdings in Sri Lanka contribute to 60% of the island's tea production. As tea lands are more prone to erosion due to many factors, soil conservation in tea lands is a must. Soil conservation measures are more prominent in tea estates as the estate management has sufficient economical and technical capability to implement soil conservation measures. However, the tea smallholdings lack these. Therefore, a study was carried out to evaluate the effectiveness of soil conservation measures in mid country and low country tea smallholdings to evaluate the awareness of planters on soil conservation measures, evaluate the effectiveness of soil conservation measures in controlling soil erosion and assess the economic and technological suitability of different soil conservation measures. Bulathkohupitiya in Yatiyantota Divisional Secretariat division in Kegalle district representing the wet zone mid country and Wanduramba in Baddegama Divisional Secretariat division in Galle district representing wet zone low country were selected as the study sites. Twenty five planters were randomly selected from each area and relevant information relevant to this study was collected through a questionnaire survey. The awareness of planters of tea small holdings on soil conservation measures is not sufficient in both the study areas which is due to the lack of expertise and lack of awareness programs. Most of the planters have very limited knowledge on long and short term benefits of soil conservation. Intercropping, shade tree management and selective hand weeding are applied by planters to conserve the soils in both study sites. Most of the planters identified mechanical measures such as drains and rock walls as effective soil conservation measures but very few apply lock and spill drains due to economic and technical issues they face. Even with some of these soil conservation measures, most of the fields show considerable soil erosion. Capability of applying soil conservation measures is limited due to economic and technological problems. Cost of construction, labour and maintenance are identified as the economic problems the planters face. Lack of expertise, skilled labour, and topography are identified as the technical hindrances in applying soil conservation measures.

Key words: Soil erosion, tea plantations, soil conservation