

Cognitive Factors Affecting Soil Conservation Efforts of Farmers in the Hill Country of Sri Lanka: An Insight from Galkadapathana Village in the Walapane Divisional Secretariat

Jayasinghe R.G.N.D. and Jayaweera A.*

Department of Agricultural Extension,
Faculty of Agriculture, University of Peradeniya, Peradeniya, Sri Lanka

Soil erosion and loss of soil fertility are burgeoning environmental issues with adverse repercussions on farm livelihoods in the Hill Country of Sri Lanka. Expansion and intensification of commercial vegetable farming, in the absence of adequate efforts to curb soil erosion and nutrient loss at the farm level, have led to soil degradation at an alarming rate in the Central Hills. Although farmers have been constantly made aware of the risks of soil degradation on their livelihoods by the extension and other state agencies, adoption of soil conservation measures in the Hill region still remains at an unsatisfactory level. Soil conservation, in an agrarian context, is the sustainable utilization of available land resources, application of erosion control measures, and adoption of suitable cropping patterns with the goal of maintaining soil productivity and soil health. This study, with reference to a sample of farmers ($n = 60$) drawn from the Galkadapathana GN division of the Walapane Divisional Secretariat, was conducted to reveal the cognitive factors (i.e., values, perceived risk, perceived behavioural control and perceived benefits of soil conservation) that would predict the adoption of soil conservation practices by the Hill farmers. Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed to validate the measurement model and to test the hypotheses. The SmartPLS-4 was used to assess both the measurement model and the structural model. The results confirmed the validity of the model. The findings of the research depicted the pervasive role of farmers' perceived behavioural control in predicting their tendency to adopt soil conservation measures. The finding of this study can contribute to develop programs to motivate farmers to adopt soil conservation practices.

Keywords: Perceived behavioral control, Perceived benefits, Perceived risk, Soil conservation, Values

* anuradhaj@agri.pdn.ac.lk