



# Effectiveness of farmer field school extension approach for dissemination technologies to tea small holdings in Kandy district

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**Abstract:** Tea smallholders in Kandy district earn a considerable income through tea cultivation, but they face many constraints, including a lack of knowledge about novel recommended technologies, high production costs, low land productivity, etc. This study investigated the effectiveness of the Farmer Field School (FFS) extension approach to improve the adoption rate of appropriate cultural practices. Through the purposive stratified sampling technique, 50 of the FFS programs' participants and 50 non-participants (NFFS) in eight Grama Niladhari Divisions in Kandy district were selected. A cross-sectional field survey was administered through a structured questionnaire and focus group discussions. The variables (adoption level, education level, experience, attitude, knowledge, social participation, group dynamics, relevance index, sustainability, land productivity) were measured using 5-point Likert scales and a scoring system. The data was analyzed by descriptive analysis, hypothesis testing, and an Ordered Logistic Regression (OLR) analysis. The results revealed that there was a significant difference between FFS and NFFS tea smallholders in the adoption of agricultural practices ( $t= 3.362, p<0.001$ ), cost of production ( $t=-3.976, p<0.001$ ) and land productivity ( $t=1.991, p<0.05$ ). The Ordered Logistic Regression (OLR) model was fitted significantly ( $p<0.05$ ) and the degree of adoption of recommended cultural practices was significantly and positively correlated with education level, experience, knowledge, attitude toward suggestions, smallholder group dynamics, and tea land productivity. The study concludes that the FFS approach is a platform for agricultural innovation and dissemination for enhancing farmers' knowledge and changing their attitude toward adopting appropriate cultivation practices, thereby improving land productivity and profitability, of tea smallholders.

**Keywords:** Land productivity, Cost of production, Farmer field school, Tea smallholders