



---

## STRATEGIES FOR IMPROVING RUBBER PRODUCTIVITY IN SMALLHOLDER RUBBER FARMING: A CASE STUDY IN MONERAGALA DISTRICT OF SRI LANKA

Gunarathne P.K.K.S.<sup>1\*</sup>, Tennakoon T.M.S.P.K.<sup>2</sup> and Edirisinghe J.C.<sup>3</sup>

<sup>1</sup>Faculty of Graduate Studies, University of Sri Jayewardenepura, Sri Lanka  
<sup>2</sup>Department of Geography, University of Sri Jayewardenepura, Sri Lanka  
<sup>3</sup>Department of Agribusiness Management, Wayamba University of Sri Lanka  
kapila.s.gunarathne@gmail.com

### Abstract

Rubber farming, in Moneragala District in Sri Lanka, plays a key role in national rubber production and still far behind the potential. This study was carried out to find the factors which determine the Productivity of Smallholder Rubber Farming (PSRF) and to find out the strategies for enhancement. A questionnaire survey was conducted in 2019, using stratified random sampling. Descriptive statistics and Spearman's correlation analysis were employed in data analyses. The average PSRF was 905 kg ha<sup>-1</sup>year<sup>-1</sup> on dry rubber basis, which was far lower below the potential, of nearly 2500 kg ha<sup>-1</sup>year<sup>-1</sup>. The mean knowledge level of farmers on tapping, agronomic practices and processing was, 53%, 51% and 36%, while adoption level of them was 42%, 34% and 22% respectively. The trees in tapping per hectare ( $r=0.1776$ ), the knowledge level on tapping ( $r=0.6430$ ), mature up keeping ( $r=0.5788$ ) and processing ( $r=0.2301$ ), adoption level on tapping ( $r=0.5280$ ), mature up keeping ( $r=0.6527$ ) and processing ( $r=0.1988$ ), self-tapping system ( $r=0.2961$ ), tapping days per year ( $r=0.4782$ ), advices given either by experienced rubber farmers ( $r=0.4795$ ) or by rubber extension officers ( $r=0.3399$ ), utilization of mass media ( $r=0.3399$ ) and participation in training programmes ( $r=0.5063$ ) were positively correlated with PSRF. The land extent ( $r=-0.4262$ ) was negatively correlated with PSRF. The extension needs of rubber farming were highlighted by the farmers where the major drawback identified was the poor adoption of recommendations due to lack of awareness, where rubber is a new crop to most of the farmers in the area. It is also evident that effective strategic extension plans which include formulating appropriate policy measures, especially focusing on mature upkeep, tapping and processing practices of rubber farming would eventually improve PSRF.

**Keywords:** Extension, Productivity, Rubber Farming, Smallholders