

F-29 Adoption of technologies in rubber small-holdings: a logistic regression approach

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Technology adaptation was identified as a major reason for yield variation in rubber smallholdings. Socio-economic factors affect the rate of adoption of certain technologies. This study attempts to identify the impact of socio-economic factors that contribute to adoption of some selected technologies.

Data gathered from a smallholder survey covering 4 rubber growing regions; Kalutara, Kegalle, Ratnapura and Colombo were employed in this study. The sample comprised 300 immature holdings. The technologies considered were: recommended fertilizer levels, high yielding clones, degree of weed control and state of ground cover management. The independent variables involved were; type of management (M), education level (E) and farmer's income(I). The counts of adopters and non-adopters of different technologies were recorded subsequently for each category. Logistic regression approach was employed in statistical analysis. The independent variables; (M) and (E) were considered as classificatory variables while (I) was considered as a quantitative variable.

Adoption of recommended fertilizer levels in caretaker managed holdings was below 50% and did not respond to the income level. However, in owner-managed holdings, a steady increase was observed with the increase in income. Farmers tend to adopt recommended cover crop and weed management practices, disregarding their income, subject to their level of education. However, the adoption rates were below 55% for both these technologies which exhibit a similar behaviour of adoption. The adoption of high yielding clones was generally above 50% even in low income levels indicating the farmers' willingness to plant high yielding clones irrespective of their socio-economic status.