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Financial feasibility of shortening the rotational age of planting Rubber under average field conditions in Sri Lanka

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Abstract

Rubber, a major plantation crop in Sri Lanka, provides multiple advantages to the growers and to the country. Although smallholder farmers tend to grow rubber within their different sets of priorities, rubber cultivations of the plantation companies are met for profit maximization. Some planters demand shorter rotational age for rubber instead of presently recommended 30 years without any compromise in overall income. Either increase in harvesting intensity or use of yield stimulants is to be advocated in such effort however there are practical limitations in doing so. With that background, the present study was aimed to assess the financial viability of reducing the rotational age of rubber under three principal ways of intensified harvesting systems. (1) intensified harvesting throughout the harvesting period (total period) to obtain a part or full amount of yield lost due to shortening the rotational age (IHTP), (2) intensified harvesting only during last 6 years on a standard basis (IH6y) and (3) intensified harvesting at last ¼ of harvesting period (IH¼P). Within IHTP, there were eight scenarios for different levels of intensified harvesting for higher yield, i.e. from 0% to a maximum of 50% of the expected yield loss due to shortening the lifespan is obtained throughout the tapping period in addition to the normal yield. Net Present Value, Benefit Cost Ratio and Internal Rate of Return were the assessment criteria used in financial analyses. The few intensified systems in reducing the rotational age were found to be financially worthwhile if biologically sustainable. Among the systems which require obtaining higher yields throughout the harvesting period (IHTP), 15% yield recovery (Y15%) could be effectively applied with 23 year rotational age and 25% yield recovery (Y25%) with even 18 year rotational age. The rotational age of 22 years appeared to be the best for either method of intensified harvesting towards the end of harvesting period (i.e. for IH6Y and IH1/4P). With different options, rubber growers could select a suitable system to match their requirement.

Keywords: rubber cultivation, rotation age, financial viability