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FTA 2020 Science Conference

Forests, trees and agroforestry
science for transformational change

14-18 | 21-25
September 2020

A decorative graphic on the left side of the page, consisting of several overlapping, 3D-style rectangular blocks in various colors (orange, teal, red, olive, light green, purple) that resemble a stack of books or a staircase. The blocks are arranged in a descending staircase pattern from top-left to bottom-right.

Book of Abstracts

Corrigendum of 10.03.2021

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Rubber agroforestry systems in Kalimantan, Indonesia, 1994–2019: The evolution

The research project titled the Smallholder Rubber Agroforestry Project (SRAP) was implemented by CIRAD/ICRAF/IRRI from 1994 to 2007 in West Kalimantan. The main objective was to replace old and ageing and economically obsolete ‘jungle rubber’, the traditional rubber-based agroforestry systems based on unselected seedlings with clonal rubber agroforestry systems based on high rubber clone productivity and adapted to different local situations. From 1994 to 1997, more than 60 on-farm trials plots were established with local farmers in order to test various tree and intercrop combinations. The study of these plots in 2020 provided some conclusions. Rubber agroforestry trials came right in time in 1994, with a strong demand from farmers for rubber systems using good planting material with high productivity, clonal rubber, with low establishment cost and income diversification. But oil palm schemes with private estates came in 1997 with a very strong pressure from these companies (through the policy of concessions) to release land in exchange for 2 ha of oil palm, therefore providing a lucrative alternative to rubber cultivation with full access to credit (but loss of land) and better return to labor. It is now time for rubber replantation, as rubber is at the end of its lifespan, due also to the high impact of diseases and poor tapping practices.

It was very interesting to engage in an in-depth socio-economic survey involving all SRAP farmers, in order to assess the current situation of farmers’ income (generated by oil palm/rubber and any other sources) and the farmers’ ongoing and planned strategies, as rubber remain a real alternative for income diversification and resilience. The use of Olympe software for income simulation and budget analysis is worth testing to assess various strategies including agroforestry practices. A prospective analysis provided an assessment of the impact of oil palm and rubber price volatility. Low rubber prices did not help in maintaining farmers’ interest in rubber; however, farmers know about rubber price volatility over the years and they are not willing to abandon rubber, as crop diversification remains a priority.

Beside the economic analysis of rubber-based agroforestry systems and the role of oil palm in income diversification, three major questions are shaping the research agenda: i) What is the impact of local fruit production derived from agroforestry systems on food security and diet quality of local families?, ii) What is the impact of timber production, both for self-consumption in households and marketing? iii) To what extent are the AF systems under study able to provide better climatic resilience?

KEYWORDS

Rubber, agroforestry, diversification, Kalimantan, Indonesia

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