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Title: Oil palm dreams and disillusions: smallholders' plantations in a context of low inputs farming systems in Indonesia

Authors: Margot Moulin*, Laurène Feintrenie**, Cécile Bessou***, Julie Wohlfahrt*

* INRA, UPR 055 SAD ASTER, F-88500 Mirecourt, France

** CIRAD, UPR Goods and Services of Tropical Forest Ecosystems (B&SEF), 34398 Montpellier Cedex 5, France

*** CIRAD, Performance of Perennial Cropping Systems Research Unit, 34398 Montpellier Cedex 5, France

In Sumatra Island, in Indonesia, rubber plantations are a long tradition of family farming. The successes of oil palm smallholders involved in partnerships with companies ('plasma smallholders') worked as an incentive for the development of independent smallholders' plantations, most often replacing smallholders' old rubber agroforests and plantations.

In Feintrenie et al. (2010) oil palm independent smallholders' plantations are expected to produce higher return to labour than rubber plantations, and more or less equivalent return to land depending on the respective prices of these two commodities. However, this result relies on assumptions on the yields of oil palm plantations that were generally too young to be productive at the time when the research was carried out. Is the reality at the level of expectations? Are oil palm independent smallholders' plantations more profitable than rubber ones?

This paper challenges this assertion, and proposes an updated comparison between oil palm and rubber independent smallholders' plantations. We carried out interviews with independent oil palm smallholders in Jambi provinces in 2013. The Livelihoods of these regions relies mainly on low inputs rubber farming systems. Since 2000, several farmers have replaced rubber agroforests and plantations with oil palm plantations. We collected data on oil palm and rubber agricultural practices and calculated their respective profitability. We then compared oil palm plantations and rubber plantations net returns to smallholders depending on two production factors: planting materials quality and fertilizers application quantity.

Independent smallholders do not benefit from partnerships scheme advantages such as the provision of inputs and technical advices, but rather rely on themselves to access to necessary oil palm inputs. Our study showed that most of the fully independent farmers who tried oil palm have a poor access to selected seedlings and fertilizers. This lack of inputs quality impacts greatly fresh fruit bunches (FFB) production and thus reduces oil palm net returns for independent smallholders compared with plasma smallholders. In these agronomical conditions the production of oil palm FFB is not economically competitive with natural rubber production. Thus, in a context of low inputs

farming systems, oil palm plantations can be less profitable than rubber plantations and cannot sustain farmers' livelihoods.

Feintrenie, L., Chong, W.K., Levang, P., 2010. Why do Farmers Prefer Oil Palm? Lessons Learnt from Bungo District, Indonesia. Small-scale Forestry 9, 379–396.

Contact: margot.moulin@mirecourt.inra.fr