les dossiers
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Expertise of the scientific community
in the Languedoc-Roussillon region (France)

Family farming

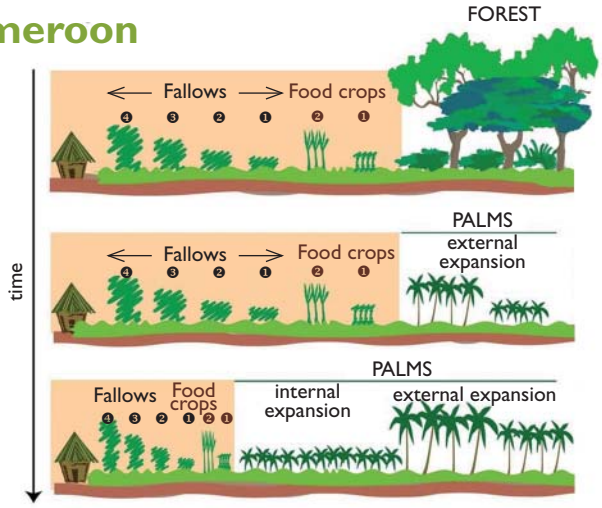
Number 19

Different crop histories of village palm plantations in Cameroon

The Edéa region in southern Cameroon is the main oil palm growing area in the country. Commercial palm plantations achieve satisfactory yields under the soil-climate conditions of the region (14-16 t/ha of bunches), whereas very contrasting yields are obtained in smallholdings (2-14 t/ha of bunches). These lower smallholding yields could be explained by the fact that farmers plant unselected planting material. The previous food crop and forest were found to be respectively associated with low and high yields in the smallholders' plantations. This raises the question of the rationale underlying smallholders' choices of land on which to expand their oil palm area.

To address this issue, on the basis of survey findings, UPR Performance of Tree Crop-Based Systems reconstructed farm trajectories, their form of land access and practices in different fields on different types of smallholdings in the region: family farms, farming enterprises and managerial businesses. Family farms were found to follow a typical trajectory for several decades:

❶ creation of a family farm producing food crops for both self-consumption and marketing
❷ development of a palm plantation through food crop sales, sometimes supported by a project
❸ once the farmer is able to live off income generated by the palm plantation, the food cropping area is reduced to a size sufficient to meet the farmer's self-consumption needs and palms are planted in the former food crop fields



▲ *How a family farm develops to become a farming enterprise with a permanent employee.*

Palm plantations require two types of expansion: external, taking over off-farm forest land; and internal, taking over on-farm food crop-fallow rotations, thus explaining differences in previous cover.

❹ a permanent employee is hired when the palm plantation is large enough: a 10 ha oil palm area is sufficient for a farmer to 'retire'…

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Family rubber farms in Thailand—diversity, ability to innovate and adapt to global changes

▼ *Latex collection after tapping in a family rubber plantation.*

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With a third of global production, Thailand is the largest natural rubber producing and exporting country, with smallholdings accounting for 95% of the total planted area. On these farms, rubber is often the main source of income in a diversified farming system. These rubber based family farms are highly diversified, ranging from smallholdings of less than one hectare, exclusively involving family labour, to large-scale farming enterprises of up to a hundred hectares employing several paid workers, but where family members are also involved in the farming activities.

Global and local changes have an impact on rubber-producing countries: demographic changes (increasing and aging populations, migration of workers between regions and sectors), scarcity of arable land, environmental pressure (forest, biodiversity and water conservation) and climate change. Meanwhile, the growing global demand for rubber is an incentive to produce more natural rubber, thus increasing the challenges facing rubber growers.

To address these challenges, in 2008, CIRAD (along with three Thai partners: Kasetsart University, Prince of Songkla University, Department of Agriculture) created a multidisciplinary research platform—the Hevea Research Platform in Partnership. This platform aims to enhance rubber plantation productivity, characterize the environmental impacts of these plantations and identify key factors that determine natural rubber quality. These activities are mainly geared towards:

- characterizing forms of family farms involved in rubber growing
- describing plantation practices to assess their impacts on production, the environment and natural rubber quality
- gaining insight into the biophysical and socioeconomic drivers of practices so as to address growers' technical innovation needs
- analysing the adaptation strategies of rubber growers to global change.

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For further information: http://hrpp.ku.ac.th