

the trees planted and was expected to hire local laborers to take care of and tap those trees. While ostensibly a 2+3 model, this arrangement more closely resembles a 1+4 model. Thongmanivong et al describe it as 'concession-like' because it employed economic coercion to induce the participation of local farmers. After planting occurs, the trees should be partitioned equally between villagers and the company so that each side gets half of the total 5,000 ha, and that the company has the right to buy the liquid rubber and labour from villagers.

McAllister (2012 and 2015), Kenney-Lazar (2012) and Friis et al. (2016) describe different types of rubber investment that have emerged in **Luang Prabang Province**.

- McAllister's research focusses on a '1+4' concession with Chinese Company Jinrun. In 2005 the Provincial Finance Office, with the approval of the Provincial Governor, signed a contract granting the company joint-venture concession rights in Nambak and Pak Ou Districts (see also Vongkhamor et al. 2007). The District Governor of Pak Ou approved a 40-year lease of 7000 hectares of 'state forest lands' to the company for the development of a rubber plantation. The concession area encompassed the territories of five neighbouring ethnic minority Khmu villages. Farmers were to be paid a set wage for each task for site preparation. The land would enter company control for 40 years, and farmers would no longer be able to use it. District officials argued that because the final step of LFAP had not been formally implemented, the land still officially belonged to the state and they deployed the final stage of the LFAP to redefine village boundaries by allocating private household rights to only half of the village territory, legally freeing up the remaining village land for lease to the rubber concession. For villages where land allocation had been fully completed, land rights were respected, and villagers were encouraged to voluntarily enter into contract farming arrangements with the company.
- Kenney-Lazar (2012) describes an 'absentee' smallholder example involving international family financing and hired labour. The situation that emerged combined private land purchases with a sharecropping agreement with US relatives, and a contract farming agreement with a Chinese company.
- Friis et al (2016) describe a concession – nominally 1+4, in Nambak, which was followed by contract farming by less well-off households and smallholdings by wealthier households. Initially, rubber was introduced by small-scale minority Chinese farmers with close familial and ethnic ties across the border (see Lagerqvist 2013 and Sturgeon 2013). Both Chinese investors and Lao government officials used the relative success of these smallholders to promote rubber through large-scale concessions and contract farming schemes (Sturgeon 2013).

Chinese Sino-Lao Chilan Rubber Development Company Ltd. (the Sino Company, also known as Jinrun) set up a rubber plantation of 100 ha in 2006 as part of a 7000-ha land concession granted by the provincial authorities in Luang Prabang in 2004. Since the land was formally classified as state land, the villagers did not receive any compensation. By 2012, the Company had established rubber in 12 villages in the district, and many households had been incorporated in contract farming and smallholder out-grower schemes as well. The contract farming was set up as a 2+3 scheme where farmers provide land and labour and the company delivers the planting material, equipment, and market. Profits from the latex sales were split, with 65 per cent going to farmers and 35 per cent to the Company. There were wage labour opportunities in the start-up phase, but the work-to-wage ratio was too low for the plantation work to be attractive compared to alternative income opportunities. The villagers anticipated employment opportunities in tapping once the rubber matured; however, these jobs had not yet materialized in 2016.

Several examples of rubber investments are described by Douangsavanh *et al.* (2009) - including in Thakhek district in **Khammouane Province** which is one of the oldest rubber-growing areas in Laos, with planting commencing in 1993, in two villages. The rubber was planted by the Phatthana Ketphoudoi Group Company with grafted plants imported from Thailand. A major attraction of the Thai Project was that they undertook to pay the equivalent of 3 years of land tax in advance to the District Land Office to gain a temporary land use certificate which could be used as the basis for rent arrangements with the company (S. Midgley pers comm). Other companies in Khammouane include the Lao-Thai Hua Rubber Company (since 2006) adopting contract farming and concession with the Lao Army in