Modelling the factors influencing the commercialisation of paper mulberry bark (*Broussonetia papyrifera* (L) Vent)

A supply chain analysis of a nun-timber forest product in Oudomxay, Lao PDR

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Abstract

Non-timber forest products (NTFPs) can be an important source of cash income for rural people in Lao PDR. This cash income is needed by many households to purchase rice in case of insufficient harvest or to complement it, if the land they have been allocated is not sufficient to cover their family's needs. One such NTFP, which has been promoted by the Lao PDR government, is paper mulberry tree (*Broussonetia papyrifera* (L) Vent). Its bark is processed to pulp and then paper (and handicrafts), which is in high demand in Thailand and Japan. Paper mulberry trees grow naturally in the forests of Northern Lao PDR, and they can also be cultivated on privately managed plots. This study was conducted to understand the factors influencing the commercialisation of paper mulberry bark in Oudomxay province (Northern Lao PDR), to investigate the potential of paper mulberry tree as a source of steady cash income.

The study aims to capture the perceptions of the stakeholders along the supply chain of paper mulberry bark: farmers, district traders, exporters, Thai manufacturers, extensionists and consultants. Based on in-depth interviews, a causal map was built for each stakeholder group. The analysis presented in the causal maps was discussed during workshops with the stakeholders. In an action research framework, the workshops were also used to start a multi-stakeholder process through a participatory supply chain analysis. The farmers, district traders, exporters, extensionists and consultants discussed and agreed on an action plan to improve the supply of paper mulberry bark. A year later, the same stakeholders met in another workshop to reflect upon the progress made and the issues that hindered them to implement selected items of the action plan. These workshop results were also used to triangulate the results of the analysis of the aggregated causal map.

The causal maps, as well as the results of the workshops, show that the main factors hindering the commercialisation of paper mulberry bark are: (a) lack of incentives to cultivation (insecure land tenure; lack of price incentives to cultivation and quality improvement; unclear legal status of paper mulberry bark, especially whether or not it is subject to quotas and taxes and who is to cover these); (b) poor information distribution (information asymmetries among stakeholders in relation to prices and to quality criteria, which are partly contradictory, depending on the processor and target export market); (c) lack of village marketing group (due to lack of knowledge about how to create and manage such groups, lack of trust, and lack of credit in the villages); (d) insecurity of exchange contracts (which is mainly dependent on the level of distrust among trading partners, as well as the lack of the legal capacity to enforce selling/purchase contracts). Thus, under the current social, economic and political framework in Oudomxay, it is unlikely that paper

mulberry bark can realise its potential to be an important and steady source of household cash income. However, it is likely to remain a crop harvested in times of need, thus having a safety-net function for farmers.

The study also shows that none of the three models found in the literature regarding the commercialisation of NTFPs (domestication, institutional and embeddedness models), could, taken individually, capture all the processes observed for paper mulberry bark in Oudomxay. However, these three models are complementary and, taken together, allowed to situate all the empirical evidence. This reinforces the need for a multi-disciplinary approach, combining economic, political and social theories, if the goal is to reach a holistic understanding of empirical data and real-life situations.