

MASTER THESIS BY ANTONIA SCHNEIDER

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# PARTICIPATORY SUPPLY CHAIN ANALYSIS OF HIGH VALUE SPICES IN NORTHERN LAO PDR

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Supervised by Prof. Dr. Volker Hoffmann and PD Dr. Andreas Neef  
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UNIVERSITY OF HOHENHEIM



Institute for Social Sciences of the Agricultural Sector  
Department of Agricultural Communication and Extension  
Agricultural Sciences in the Tropics and Subtropics



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## Abstract

This study analyses the supply chain of cardamom (*Amomum spp.*), a Non Timber Forest Product (NTFP) that is either obtained from wild collection or cultivated as domesticated NTFP. The study was conducted in the context of the Lao-German Programme on Integrated Rural Development of Mountainous Areas in Northern Lao PDR (RDMA). This is a programme that endeavours to provide economic opportunity and growth through sustainable cultivation, the use of natural resources, income generating activities, and economic development. The aim of this study is to investigate to what extent cardamom is already part of the income of the rural population of the Luang Namtha district, Northern Lao PDR. Furthermore, to identify not only the future prospects of this perennial crop under increased resource scarcity but also which factors determine cardamom as an alternative income source for the rural upland population.

To evaluate the suitability of cardamom cultivation as a viable income generating activity, stakeholders taking part in the supply chain were identified. Those who are active within the supply chain were interviewed by employing Participatory Rural Appraisal tools like focus group discussions and semi-structured interviews. According to this information, the supply chain was mapped. Furthermore, economic data was gathered on the prices of cardamom and all income generating activities in the target villages.

The supply chain is a network of different stakeholder groups (producers, collectors, local traders and middlemen, exporters and transboundary middlemen) and each group is involved in a specific activity within the supply chain. The analysis of the supply chain leads to the understanding of the relationships and interactions of these stakeholders involved in the supply chain of cardamom and their marketing strategies. This helps to identify and tackle problems and challenges occurring during the product flow from production to consumption. On this basis possible strategies and solutions were suggested to improve the production and marketing of cardamom and to prevent losses during the product flow. Furthermore, recommendations can be given to improve the existing production system.

The qualitative data enables an understanding of the perception of cardamom among the rural upland population. It helps to assess the economic importance of cardamom among the producers and collectors. Furthermore it was used to identify which individuals would potentially benefit from the promotion of cardamom.

The results of the study indicate that cardamom is a crop that neither requires a high investment nor demands much by way of labour and external input. Cardamom is produced mainly for the export to China. Marketing channels are well established and the good is in high demand with traders, middlemen and exporters. The prices have risen in recent years and each group of stakeholders obtains a satisfying benefit from taking part in the cardamom business. Furthermore, problems could be identified during the drying process of cardamom, leading to a lower price and thus to a loss of income. The cultivation of the improved varieties introduced from China could ultimately threaten biodiversity and endanger local varieties. Also, production is currently geared towards supplying the one market with the highest demand; the

Chinese market. This dependency on a single country can lead to high losses in cases of price fluctuation.

For farmers with a higher income and a specialization in other cash crops, cultivating and selling cardamom seems to be a buffer strategy in case of crop failure of other cultivated upland crops. Collectors with a lower income depend to a large extent on the sale of cardamom. Individuals benefiting the most from the introduction of cardamom as an alternative income source will be the ones practising collection of wild cardamom. Due to deforestation caused by focusing on the cultivation of rubber, the base of their livelihood is threatened. This can be buffered partly by shifting from wild collection of cardamom to cultivation. To achieve successful cultivation, important preconditions like the availability of suitable land for planting cardamom and infrastructure for the marketing process must be ensured.