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**Tea-Walnut Intercropping in Xishuangbanna, China: A  
Coevolutionary Analysis**

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**Abstract**

In recent years, the farmers in the higher altitudes of Xishuangbanna prefecture of Yunnan province, China, have seen their lowland neighbours enjoying rapid economic growth, and are trying to follow suit. Environmental features, socio-cultural characteristics and land use innovations are components of sustainable rural development, the evolution of which is strongly interlinked and mutually influenced. The aim of this research was to analyse this coevolutionary process and to examine whether there are alternative directions to which this process can lead.

Richard NORGAARD's theory of coevolution provides amongst other ecological and economic theories the frame of approach. A chronological examination of (closely defined) society and (less easily described) surrounding ecosystems are being assessed, analysing the coevolutionary impacts on each other under changing circumstances. Those are namely the production system of tea (*Camellia sinensis*) and its changes over time, particularly the introduction of the innovation “intercropping”.

A case study using a triangulation of narrative and semi-structured expert interviews, observations, content analysis of secondary literature etc. was made in the village of Xiao-NouYouShangZhai, where Tea-Walnut intercropping was established five years ago.

The research disclosed three main findings:

- Altitude plays perhaps the most significant environmental parameter affecting farmers' decision of whether to switch to more marketing (labour extensive, cash) oriented cultures such as rubber;
- Development of agro-ecosystem is not related to the complexity of Han Chinese and ethnic Chinese minorities society, in which elaborated social structures existed prior to existence of market oriented agriculture production;
- Village, agro-ecosystems and community forests did not lose as much ecological complexity as in the case of lowland rubber plantations “Green Desert”.

The people are open for alternative livelihoods and have the socio-cultural capacity to adapt to, and adopt new ideas, such as intercropping Camphor tree with Tea. New intercropping or forms of agro-tourism are some of the feasible options. This paper concludes with plausible ways of sustainable land use development. One such example is forest conservation through active farmer participation in nature reserve management, successful schemes in other national nature reserves in China.

**Keywords:** China, matrix of coevolution, nature conservation, stakeholders' analysis, tea-walnut intercropping, Yunnan

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