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Welfare Economic Valuation of a Sustainable Rubber Production in Southeast Asia: An Exemplary Study in SW-China

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Abstract

The fast encroachment of rubber plantations into tropical forests in Xishuangbanna Prefecture, Yunnan Province, has led to severe damages of the local environment. This drastic shift in land use from tropical forest to large-scale rubber plantations has led to a pollution of local water resources, a change in local climate as well as to the possible extinction of rare animal and plant species. Starting from this status quo the interdisciplinary Chinese-German research project SURUMER develops strategies for a more sustainable rubber cultivation in Xishuangbanna (XB).

While such a change in land use obviously causes implementation costs and additional economic costs in terms of forgone profits the social benefits accruing from such a project are rather hazy. The paper proposed here presents an attempt to assess these benefits using the Contingent Valuation Method (CVM). The CVM is an interview-based assessment technique aiming at the elicitation of people's willingness to pay (WTP) for the realisation of an environmental project like the one discussed here. In a previous research project the WTP for a more sustainable rubber plantation of the permanent residents of XB has already been assessed. In a follow-up study the WTP of two other stakeholder groups, *i.e.* tourists visiting XB on the one hand and people living far away (*e.g.* in Shanghai) on the other, for environmental improvements in XB is assessed. We want to find out how much people not living permanently in XB care for the environmental problems there and for their mitigation. First survey results show that not only tourists but even people who never visited XB are concerned about the environmental deterioration taking place there and that they are willing to contribute personally to improve the situation. These findings show that the social importance of a more sustainable rubber planting strategy in XB is not restricted to the local population and that the social benefits accruing from the implementation of such a strategy are much higher than expected. We suggest that for a rational decision on the practical implementation of such a programme the overall social benefits should be considered and compared to the programme costs.

Keywords: Contingent valuation method, rubber cultivation, willingness to pay