## **CRC 990**

# Ecological and Socioeconomic Functions of Tropical **Lowland Rainforest Transformation Systems** Sumatra, Indonesia



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From Swidden to Carbon: Historic and Current Drivers of Cultural Landscape Transformation

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#### **Background**

Since the Indonesian reform era (1999) rapid decentralization processes have transformed natural resource governance in Indonesia fundamentally. The highly centralized resource extraction model of the New Order era has been followed by complex and multi-sited arenas of ongoing political struggle for access to land and forest resources. Already before the reform era but even more so now, various interest groups such as companies and conservation agents are claiming forest either for exploitation (Fig. 1; 2) or protection. They determine new politics of rapid local transformation leading to forest degradation, land-use change and exclusion.

#### **Conceptual Framework**

Our working group seeks to explain causes and conditions of historical and current landscape transformation processes in post-frontier and frontier areas of Jambi (Fig. 3) using a political ecology approach. In particular we draw on access and property rights theories as well as on approaches of environmental entitlements and social vulnerability.

#### WP 1: Historic Geographical Analysis of **Cultural Landscape Transformation**

### WP 2: Geographical Analysis of the **Current Cultural Landscape Transformation**

WP 3: Reducing Emissions from Deforestation and Degradation (REDD+), **Transnational Conservation and Access** to Land in Jambi, Indonesia

Highlights the historical drivers of land use change by focusing on regional analyses of demographic development, settlement patterns, political conditions of different time periods as well as environmental aspects regarding local and regional accessibility of natural resources and variations of land use over time.

Identifies the conditions and drivers of present cultural landscape transformation and its impacts on rural livelihood systems as well as on the environmental entitlements of stakeholders on different levels of analysis.

Identifies land and forest tenure regimes and analyzes the abilities of different stakeholders to access and maintain access to land and forest resources in REDD+ target areas.



Fig. 1: Replanting rubber





Fig. 3: Forest encroachment / Informal



#### Methods

Qualitative research methods are used and applied to the political ecology perspective on human-environmental interactions. Data are generated by reviewing literature and archives, applying village and household case studies, as well as stakeholder interviews with semistructured survey techniques, focus group discussions and PRA-tools.

### **Preliminary results**

First results show that landscape transformation in Jambi Province is driven by actor groups regarded as external to local population on the village level. Large scale development interventions like the initially World Bank supported transmigration programs and the global demand for cash crops, such as rubber and palm oil are seen as the main causes for a rapid transformation towards intensive land use systems. On the micro-level, ethnicity, patron-client linkages and kinship are crucial factors mediating access to land and environmental entitlements and therefore shaping rural livelihood systems. The impact of recent forest conservation (Fig. 4) based mitigation policies such as REDD+ on the cultural landscape remains very limited.







