

# SURUMER



## Sustainable Rubber Cultivation in the Mekong Region

Development of an integrative land-use concept in Yunnan, China



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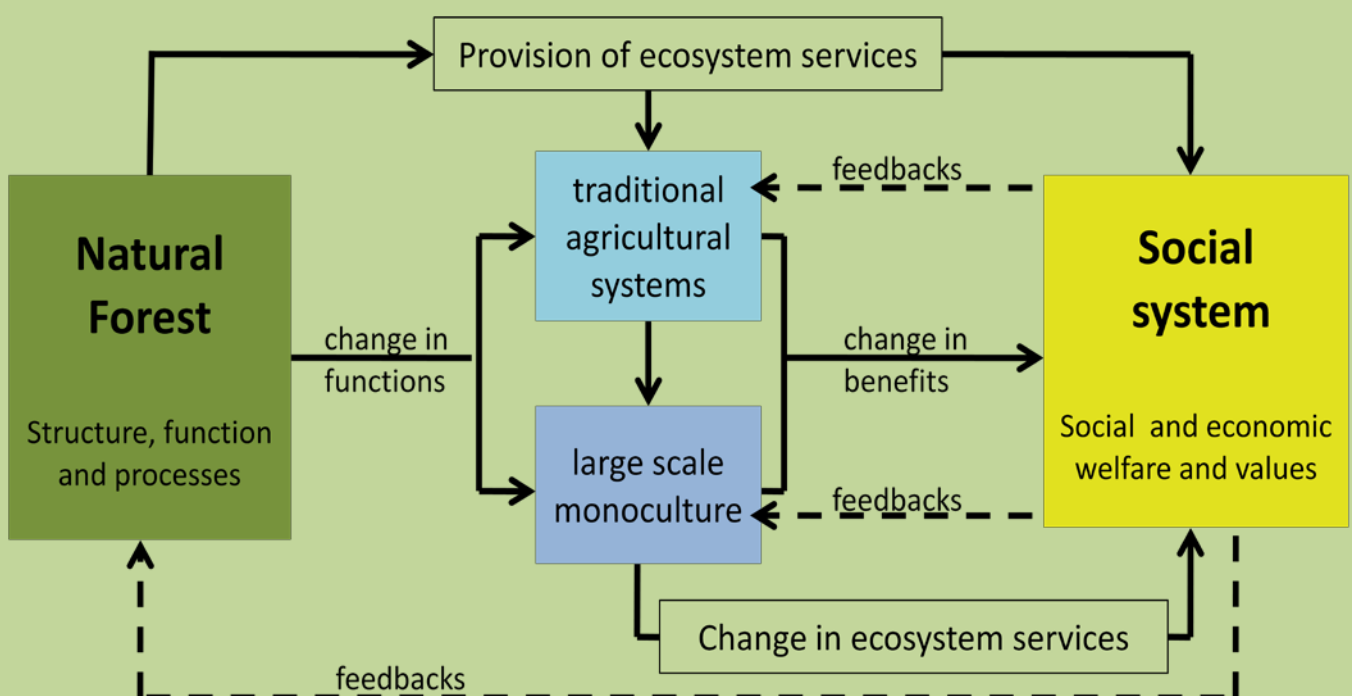
**Project goal** is the development of an integrative, applicable, and stakeholder-validated concept for sustainable rubber cultivation in southern Yunnan. This highly diverse eco-region represents most of the potential rubber cultivation areas across the Greater Mekong Subregion (GMS), where presently more than half of the global natural rubber is produced.

Rubber cultivation in this region increased dramatically in the last few decades. Consequences are

- the reduction of natural forests and biodiversity on various scales,
- impacts on important ecosystem services (ESS) and functions (ESF),
- changes and risks in the socio-economic situation of farmers.



Land use by rubber production includes various feedbacks through human responses at different spatial and temporal scales.



**Approach and concept** of the project are designed for

- analyses of ESS and ESF affected by rubber cultivation,
- identification of trade-offs and synergies between diversified alternative rubber cultivation and economic goals,
- development of operational concepts for practical implementation of sustainable rubber cultivation systems.

The structure of the project is multi-, inter- and transdisciplinary and involves nine German-Chinese research subprojects (SP):

**SP1:** Carbon dynamics

**SP2:** Local water balance

**SP3:** Water management

**SP4:** Pollinator services

**SP5:** Agro-ecological diversification

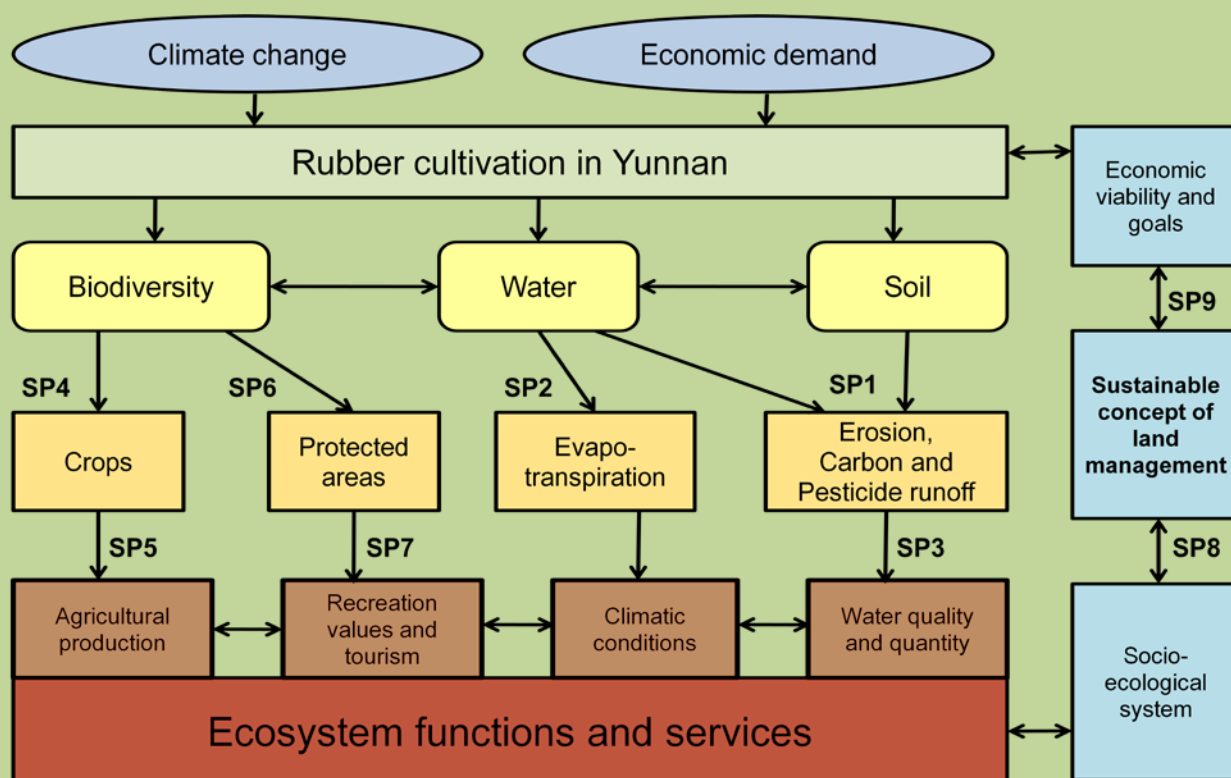
**SP6:** Nature reserve conflicts

**SP7:** Welfare economic valuation

**SP8:** Knowledge transfer management

**SP9:** Microeconomic analysis

**PMC:** Project Management Coordination



**Implementation** of the project will be reached by establishment of experimental and demonstration field sites developed for best practices for agro-ecological diversification in rubber management. To adopt appropriate solutions for achieving long-term resilience of the socio-ecological system, the transdisciplinary valuation of designs and concepts is conducted by scientists and stakeholders.

**SURUMER** is one of 12 worldwide projects within the research activity “**Sustainable Land Management**” established by the German Federal Ministry of Education and Research (BMBF). Its overall aim is the creation of the required knowledge and decision bases for sustainable land management as well as the provision of action strategies and instruments for a forward-thinking adaptation of regional land use to global change.

For further information see <https://surumer.uni-hohenheim.de/>

## Contact

**Prof. Dr. Georg Cadisch (Head)** Email [cadisch@uni-hohenheim.de](mailto:cadisch@uni-hohenheim.de)

**Dr. Gerhard Langenberger (Management)** Email [gerhard.langenberger@uni-hohenheim.de](mailto:gerhard.langenberger@uni-hohenheim.de)

**Sabine Baumgartner (Administration):** Email [sabine.baumgartner@uni-hohenheim.de](mailto:sabine.baumgartner@uni-hohenheim.de)

Phone +49-(0)711-459 23628; Fax +49-(0)711-459 23629

### Mail Address

University of Hohenheim, Institute of Plant Production and Agroecology in the Tropics and Subtropics (380), Agroecology Section, 70593 Stuttgart, Germany

## German Partners



University of Hohenheim



Humboldt University of Berlin



University of Stuttgart



Leibniz University Hannover



## Chinese Partners



Beijing Normal University (BNU)



Tongji University Shanghai



Hainan Rubber Cultivation Research Institute (RCRI)



China Agricultural University (CAU)



Naban River Watershed National Nature Reserve (NRWNNR)



Center for Chinese Agricultural Policy (CCAP)



Xishuangbanna Tropical Botanical Garden (XTBG)



Yunnan Academy of Social Sciences (YASS)



Tsinghua University, Beijing



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