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“Utilisation of diversity in land use systems:  
Sustainable and organic approaches to meet human needs”

## Ex-Ante Sustainability Impact Assessment of Multifunctional Land Use - Case Studies in China and Latin America

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### Abstract

The EU Integrated Research Project SENSOR, develops ex-ante Sustainability Impact Assessment Tools (SIAT) to support decision making on policy options related to land use especially in European regions. After two years project duration focussing on European land use policies, SENSOR recently integrated six additional partner institutes from China and Latin America into the Consortium. The challenging task during the next two years will be to test the validity of European Ex-ante Impact Assessment Approaches and the adaptability of the developed SIAT in extra European regions. With China, Brazil, Argentina and Uruguay, SENSOR focuses on those countries, whose land use sectors are highly dynamic and of particular importance for the world's sustainable development.

SENSOR will develop a comprehensive concept for the elaboration of integrated Sustainability Impact Assessment Tools and formulate relevant future scenarios of possible land use options. “Sustainability choices spaces” will indicate to the decision maker the room for manoeuvre with regard to Sustainable Development. On the basis of the Driver-Pressure-State-Impact-Response (DPSIR) approach, region specific driving forces will be analysed and a set of sustainability indicators will be compiled. The identification of land use functions will give special importance to land use sectors and their respective functions from different stakeholder perspectives. Causal chain relationships between policies, land use changes and sustainability issues for relevant impact issues will be identified and integrated into the SIAT.

In China two regions with extremely contrasting sustainability issues have been chosen: (a) the Mentougou district in the western hills of Beijing, a mountainous terrain supplying Beijing with agricultural products and (b) the Guyuan district (Ningxia), which is considered as one of the poorest regions in China. In Latin America SENSOR focuses on the La Plata River Basin, a region with an outstanding high number of threatened ecosystems (Pantanal, Atlantic Rainforest, Cerrado, Chaco, Pampas).

SENSOR offers a platform for exchange among researchers and experts from government, economy and civil society from Europe, Latin America and Asia on experiences with sustainability issues and ex-ante impact assessment on land use.

**Keywords:** China, decision support system for policy making, Latin America, land use changes, sustainability impact assessment

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