



Tropentag, September 14-16, 2010, Zurich

“World Food System —  
A Contribution from Europe”

## Knowledge Management and Decision Support for Sustainable Land Management

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### Abstract

Much research has focused on desertification and land degradation assessments without putting sufficient emphasis on prevention and mitigation, although the concept of sustainable land management (SLM) is increasingly being acknowledged. A variety of SLM measures have already been applied at the local level, but they are rarely adequately recognised, evaluated, shared or used for decision support. WOCAT (World Overview of Technologies and Approaches) has developed an internationally recognised, standardised methodology to document and evaluate SLM technologies and approaches, including spatial distribution, allowing the sharing of SLM knowledge worldwide. The recent methodological integration into a participatory process allows now analysing and using this knowledge for decision support at the local and national level.

The use of the WOCAT tools stimulates evaluation (self-evaluation as well as learning from comparing experiences) within SLM initiatives where all too often there is not only insufficient monitoring but also a lack of critical analysis. The comprehensive questionnaires and database system facilitate to document, evaluate and disseminate local experiences of SLM technologies and their implementation approaches. This evaluation process - in a team of experts and together with land users - greatly enhances understanding of the reasons behind successful (or failed) local practices. It has now been integrated into a new methodology for appraising and selecting SLM options. The methodology combines a local collective learning and decision approach with the use of the evaluated global best practices from WOCAT in a concise three step process: i) identifying land degradation and locally applied solutions in a stakeholder learning workshop; ii) assessing local solutions with the standardised WOCAT tool; iii) jointly selecting promising strategies for implementation with the help of a decision support tool. The methodology has been implemented in various countries and study sites around the world mainly within the FAO LADA (Land Degradation Assessment Project) and the EU-funded DESIRE project.

Investments in SLM must be carefully assessed and planned on the basis of properly documented experiences and evaluated impacts and benefits: concerted efforts are needed and sufficient resources must be mobilised to tap the wealth of knowledge and learn from SLM successes.

**Keywords:** Decision support, knowledge management, participatory, sLM, stakeholders

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