

Finding alternatives for natural resources use in Southern Brazil: initial results of the Locally Adapted Participatory Forest Management System lapFMS

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Although the challenge for meeting people's needs in rural areas and managing forests is not a problem restricted to southern Brazil, it is particularly relevant as the region is characterized by a severely threatened forest type in an area where more than half a million small rural properties (< 50ha) are subjected to near poverty conditions. In this paper we will explore the legal, social, economic and environmental issues related to the reduction of the forests in southern Brazil and propose the implementation of a "locally adapted participatory forest management system - lapFMS" focusing on the reducing both rural poverty and deforestation. This paper aims to deliver scientific expertise translated into practical solutions related to land use and participative SFM, considering a landscape approach for both small and large scale properties. The intent is to provide the basis for changes in the environmental law to better reflect the enhancement of SFM in line with agroforestry across the landscape from forests to farms. The initial step in the lapFMS refers to a broad analysis of the current environmental state of the area under consideration. It can be defined as a territory zoning which is based on the compilation of environmental data obtained from primary or secondary sources and requires initially a land-use/land-cover (LULC) mapping. In the second phase, following the territory zoning and the definition of the areas in which forest resources will be managed either directly or indirectly, the techniques to be applied in forest management are defined. This step involves the characterisation of forest stands and the definition silviculture and long-term actions to be put into practice for each stand. The steps described are part of a lapFMS that can be applied to landscapes characterised by both small and large properties. However, as land ownership differs region by region, different approaches are necessary and must involve local communities. In the case of our study area – Caçador, South Brazil – the landscape is characterized by small-scale farming in which forest stands might be too small for individual forest planning. We further developed our approach in the region by evaluating alternative management options for bamboo-dominated forests which currently covered large areas in Southern Brazil. Specifically, we tested different uses for bamboo together with controlling techniques which intend to create alternative income sources for land owners. Initial results show very promising perspectives for forest conservation and poverty reduction in rural Brazil.