



# The challenge to adaptive management and the maintenance of biodiversity value

S. Luque

## ► To cite this version:

S. Luque. The challenge to adaptive management and the maintenance of biodiversity value. IUFRO 2010 Landscape Ecology Working Group International Conference: Forest Landscapes and Global Change - New Frontiers in Management, Conservation and Restoration, Sep 2010, Bragança, Portugal. p. 67 - p. 67. hal-00558862

**HAL Id: hal-00558862**

**<https://hal.science/hal-00558862>**

Submitted on 24 Jan 2011

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

**Symposium 7: A landscape approach to sustainable forest management: the challenge to adaptive management and the maintenance of biodiversity value**

**The challenge to adaptive management and the maintenance of biodiversity value**

Luque, S.<sup>(1)</sup>

Cemagref Institute for Agricultural and Environmental Engineering Research, Mountain Ecosystem Unit, 2 Rue de la Papeterie, 38402 Saint-Martin d'Hères, France

**ABSTRACT**

Considering the resulting impacts on land use and biota, the option of adapting land use and landscapes to mitigate undesired implications by climate change is now appearing on the political and research agendas. One of the most important challenges for future research will be to integrate research across different scales, including spatio-temporal scales within an interdisciplinary and multidisciplinary framework. If we manage to follow this route, science will be able to move from analytical to actionable climate knowledge.

This work provides views and examples on how the holistic approach of landscape ecology can be considered towards the interplay between biodiversity value and the needs of forestry activities. Focusing on biodiversity conservation as a proxy for ecological dimensions of sustainable forest management the work proposes a series of requirements for the conservation of habitat networks and ecological processes to be met by forest landscape managers.

Landscape ecology, proposes a comprehensive and integrative approach from the plot level to the landscape level, considering adaptive management and an analysis of ecological thresholds. Spatial conservation prioritization methods are applied to a national-scale conservation planning task.

Results from Boreal and temperate forests in Europe demonstrate the importance of forest habitat quality models and the development of a spatial framework to integrate information of protected and private forest land.