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Concepts and Methods for the Development of Ecoregional Conservation and Resource Management Visions — the Example Bolivia

Pierre Ibisch

Fundación Amigos de la Naturaleza, Botanical Garden, Bolivia

Abstract

Bolivia is one of the most biodiverse countries of the world. The 15 ecoregions and their high level of ecosystem and species diversity are a result of an enormous geodiversity and the location of the country within several biogeographic transition zones. In contrast to most other tropical countries, Bolivia is characterized by several vast ecoregions, especially the speciose Andean and lowland forests, that present a rather good conservation status and a low human population density. Therefore, the country offers ideal opportunities for the implementation of a proactive and integral land-use and resource management planning that considers both traditional land-use-based planning criteria and biodiversity conservation priorities. Until now, most land-use planning has been done without adequate participation of the conservation sector. Partially, this may be due to the lack of methods that facilitate the integration of land-use and conservation planning aspects. Ideally, the integrated land-use planning should start at the national scale and, then, be implemented at ecoregional and local scales. During the identification of conservation priorities it is important to take into account 'classical' conservation-relevant aspects like diversity and endemism patterns. However, this approach is too static if not complemented by other elements. Recently, it becomes very clear that inevitable environmental (and socioeconomic) changes and arising conservation necessities must have a strong influence on the conservation priorities. Functionality and viability of biodiversity components may be more important than the adequate representation of all unique manifestations of biodiversity. Quite often, the relevance of the conservation status of the ecosystems to be conserved is neglected. Thus, it is necessary to integrate objective methods for the evaluation of the conservation status in the priority-setting exercise. Examples are given how this step can be accomplished making use of socioeconomic proxy indicators. Finally, the Bolivian ecoregional conservation visions are presented: from strict nature protection (5% of the country's area), e.g. in the case of the best conserved portions of the montane rain forests, to sustainable land and resource use and/or restoration of the productive potentials (50 % of the territory) and intermediate visions.

Keywords: Biodiversity, Bolivia, conservation, ecoregions, land use planning