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Participative research to develop integrated approaches for a sustainable wildlife management in the Biosphere Reserve Wienerwald

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Competing interests and conflicting goals between different land use demands, the habitat requirements of wild animals and objectives of a protected area management often cause considerable conflict potentials and conflicts, which may threaten both, conservation and sustainable use of nature and the sustainability of each involved land use sector. While the resulting need for conflict management poses a challenge to the management of any nature protection area, it is particularly pressing in Biosphere Reserves, which have to balance the following three in some cases competing functions: nature conservation, sustainable regional development, as well as education, research and monitoring.

Biosphere Reserves are characterised by a comparatively weak regulatory management regime. Successful resolution and management of conflicts in Biosphere Reserves must therefore rely strongly on stakeholder participation in order to identify conflict potentials and to achieve acceptance of management measures and active commitment to their implementation.

Within the research project "ISWI-MAB Integrated Sustainable Wildlife Management in the Wienerwald Biosphere Reserve" funded by the MaB Program of the Austrian Academy of Science (REIMOSER et al. 2008) a participatory and collaborative research approach (c.f. CORNWALL A. & JEWKES, R., 1995) involving the main land use sectors (forestry, agriculture, recreation, hunting, nature conservation), which influence wildlife resources, was applied to analyse the different levels of conflicts between land use and wildlife, and to develop tools for integrated sustainable wildlife management and land use.

The Biosphere Reserve Wienerwald is a forest-dominated landscape in the proximity of the urban agglomeration of Vienna and it is characterised by high biodiversity richness and high conservation value, but also by a variety of different land use interests. Besides agriculture and forestry, the area is characterised by strong pressures from settlements, infrastructure development and recreation. Due to the manifold overlaps and interactions in a multiple-used landscape, a variety of conflict situations threaten conservation and sustainable use of native wildlife populations and their habitats. The responses of wildlife to these impacts frequently cause multiple feedback mechanisms, retroacting in turn on the land uses within the wildlife habitat. Thus, wildlife itself and many other land uses are connected by an interwoven system of dynamic interdependencies and interactions.

The objectives of the research project were to analyse the interactions between wildlife and sectoral land uses, to identify and evaluate interrelationships that are critical to the regional sustainable development, as well as to develop cross-sectoral approaches to the integration of wildlife management and other major regional land uses into a sustainable regional land use system. Therefore the project used a participatory process that included the following three major stages of participation (Umweltbundesamt, 2006): (i) information, (ii) consultation and (iii) collaboration.

One of the first steps of the research project was the identification of regional stakeholders relevant to the project objectives. Building on existent Biosphere Reserve-related consultancy fora, a multi-sectoral and interdisciplinary stakeholder platform composed of representatives of different

forms of land uses (recreation, forestry, agriculture, nature conservation, hunting etc.), land owners, local politicians, members of regional authorities, NGOs, and interested members of the local public was established (fig. 1).

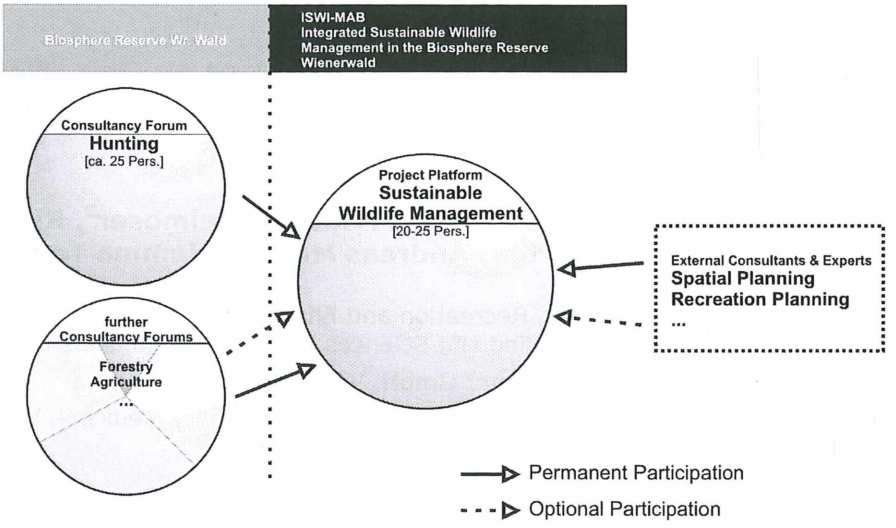

Figure 1: Organisation of the participation panel

The stakeholder panel contributed knowledge about existing conflict potentials and conflicts and provided support to identify relevant experts. Regular meetings of the participation panel had a key role in reviewing and discussing interim and final results and proved crucial to securing applicability of research results and meeting user requirements.

Different socio-empirical techniques were applied to gather further in-depth information on wildlife related interactions and conflicts. Using a structured interview guide, a series of in-depth face-to-face expert interviews with sectoral and local experts was conducted in order to gain insight in key issues related to inter-sectoral land use conflicts and to identify key visitor and land user groups.

For the identified key groups (hikers, mountain bikers, equestrians, forest managers and forest owners, farmers), group-specific questionnaires consisting of both closed multiple choice questions and open questions were developed. Depending on the user group, the questionnaires were delivered using different modes of survey: targeted mail survey, internet survey and on site visitor interviews. 1330 questionnaires were analysed by diverse statistical methods. Beside others in-depth information of frequencies and motivations of visitations, the spatial and temporal distributions and the adherences of management rules were gained. But the main findings were that interviewed actors were not aware of the whole range of troubles they caused carrying out their activities and that a lot of conflicts between the different land user groups were based on different cultural approaches and preconceptions.

Based on the outcomes gained from the stakeholder panel, expert interviews and land user surveys, tools for assessment and monitoring of sustainable use and guidelines for management had been developed and tested by key stakeholders. Main results included operational frameworks of integrated sustainable wildlife management, designed as self-evaluation tools for the investigated land user groups (forestry, agriculture, hunting and recreation management) to evaluate their own influences on sustainable wildlife management.

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