# Sustainable tourism from an economic perspective - demand and management within German Biosphere Reserves

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### Introduction

Biosphere Reserves (BR) are internationally recognized protected areas, which are designated by the UNESCO to promote sustainable development. They seek to reconcile conservation of biological and cultural diversity with socio-economic development. Grassroots actions are the base to achieve partnership between people and nature. BR are ideal to test and demonstrate innovative approaches to sustainable development. On a regional scale UNESCO (1996) sees sustainable tourism as an important instrument to fulfill these objectives.

The main goal of this article is to evaluate the economic impacts of tourism in German BR and their ability to constitute pilot areas for sustainable tourism. After analyzing this nexus, the comprehensive study explores the management actions of the BR administration, which aim to enhance the regional economic impact in the most sustainable manner. In order to answer these research questions, two different methodological approaches were selected.

#### Methods

#### Demand side analysis

Studies on economic impact model the effects on income, output and employment caused by the injection of money into an economy by a certain activity. Within the international context, different approaches to regional economic impact assessment are common: cost-benefit analysis, multiplier models and input-output analysis (Fletcher 1989). Since the 1990s, an adaption of the Keynesian multiplier approach has gained most attention in Germany. In order to perform the impact analysis, six out of 15 German BR were selected. The study (Job et al. 2013) areas were chosen to represent the variety of German BR regarding touristic state of development (overnight stays etc.). During 2010-2013, 52.571 short and 8.253 long interviews were conducted, which were used to calculate tourism demand. Furthermore visitors were categorized by their affinity to the label BR and asked about their daily spending.

#### Management side analysis

The long-term aim to develop German BR as sustainable tourism destinations and to enhance the economic impacts requires the BR administrations to work on certain success factors. An extensive literature review (e.g. International Conference on Responsible Tourism in Destinations 2002; Hammer & Siegrist 2008) shows important development criteria for protected areas:

- 1. Organizational structure, resources and strategy of the BR administration in the field of tourism;
- 2. Tourism products and services that reflect, complement and enhance the destination, thereby reducing financial leakages while maximizing the economic benefit for the local population;
- 3. Marketing of the BR as an attractive destination in a consistent manner, thereby reflecting the natural, social and cultural integrity of the destination;
- 4. Cooperation with and participation of regional stakeholders.

These categories are used as a framework to analyze the performance of BR in sustainable tourism development from an economic perspective. In order to explore the actions of the BR management to influence tourism sustainably and enhance the economic impact of tourism within the region, qualitative interviews with the BR directors and other key persons were conducted.

## Results

In total, the six investigated BR generate over twenty million tourists during one year. The share of over 60 % of day-trippers in four out of six BR shows the relevance of these target groups. The empirical results also demonstrate, that the percentage of visitors who know the BR status of the protected area, is very variable. At least half of the visitors are able to name the protection status of the region. The share of visitors, who are attracted by the label BR, was defined as the percentage of visitors that answered affirmatively three successive questions concerning the status of protection and their motivation. The group of visitors with a high affinity for the BR varies between 3.5 % for Pfälzerwald and 21.5 % for the Schaalsee region.

In addition to assessing the number of visitors and the various relevant visitor groups, the level of tourist expenditures is of major importance. The values for the visitors of BR are on average 17 Euros for the day-trippers and about 60 Euros for overnight guests. The gross tourist spending of the six investigated BR sums up to a total of nearly one billion Euros, which results in 28,000 income equivalents. The direct and indirect income has a big range within the group of BR that varies between 5.7 million for the Schaalsee (30.900 ha) region and nearly 204 million Euros in Südost-Rügen (22.900 ha), resulting from a significant higher visitor number and percentage of overnight visitors in the BR Südost-Rügen.

Management and development of tourism through the BR administration is often limited by a shortage of resources and a focus on other topics. Furthermore, cooperation between the regional tourism industry and the BR is in some cases limited and the label of the BR does not play a significant role within the marketing strategy. Nevertheless in some BR, e.g. Schaalsee and Rhön, the label BR is of higher importance within the tourist marketing strategy and cooperation between relevant touristic actors is further developed. Also within touristic product development the Rhön BR is a good example: around 150 enterprises from different branches are cooperating in one umbrella brand promoting the BR, while there are other BR with far less developed initiatives.

# Discussion

The number of tourists shows that BR regions are important destinations on the German tourism market. The 28.000 income equivalents highlight that BR are an important economic factor in rural areas. However, the already known discrepancy between preferences for sustainable forms of holidays of tourist and their actual behavior exists within German BR (Budeanu 2007). This leaves work for the administrations: with the help of qualitative interviews it is indicated, how intensive the BR administrations are already working on the tourist promotion of BR in order to fulfill the sustainable development function. With a focus on organizational structures and resources, sustainable tourism product development, marketing and cooperation it is shown, where the work has to be improved (in order to become more attractive as a destination and enhance the economic effect of tourism within the region) and the obstacles that have to be managed in order to do so.

# References

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