

Sustainable Tourism in Biosphere Reserves of East Central European Countries – Case Studies from Slovakia, Hungary and the Czech Republic

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Abstract: This paper reviews the perspective of the local actors within the context of a sustainable future. Biosphere reserves as designated model areas for sustainability strive to reconcile existing conflicts between the goals of economic growth, environmental protection and social justice. Tourism development in biosphere reserves provides opportunities as well as challenges for the exploitation of biodiversity. In order to minimise the danger it is important how tourism is managed. Without the involvement of local people, sustainable tourism development is doomed to failure. The case studies presented from Slovakia, Hungary and the Czech Republic provide a view inside the situation of protected areas in East Central Europe and cover areas where tourism has reached differing stages of development. Empirical results in four biosphere reserves will show the view of the actors in the region.

Introduction

During the last decades there have been profound changes in Central Europe, and some of these have also affected the natural environment. Nevertheless, nowadays there is 30% of the total area of East Central Europe with the highest density of biodiversity. (Homeyer 2001, p. 41). A special feature of this region is the strong presence of wild animals that are almost extinct in Western Europe e.g. lynx, wolf, bear and beaver.

Under the former socialist system, industrial development was concentrated in urban areas, which meant that the undisturbed development of ecosystems was possible outside these centres. But this diversity of species and the preservation of some protected areas in East Central Europe are increasingly endangered. The accession to the European Union this year promotes the idea of ease of economic actions and access to markets, but at the same time this increases the danger to biodiversity: the most serious threats include unsustainable exploitation, pollution and land-use changes throughout Central and Eastern Europe.

Tourism, while still at a relatively modest level of development in the region, provides opportunities as well as challenges for the sustainable use of biodiversity. To minimise the threat it is important to know in which way tourism should be managed. The concept of sustainability strives to reconcile conflicts existing between the goals of economic growth, environmental protection and social justice. In biosphere reserves it is an important task to develop tourism in a sustainable

way because of its large potential negative impact on biodiversity, in both a quantitative and qualitative sense.

The growing market for nature-oriented tourism is exerting growing pressure on sensitive areas. Many regions now have to take action. Biosphere reserves are designated and managed with the objective of promoting and combining biodiversity conservation with sustainable development based on community participation and science.

The case studies presented from Slovakia, Hungary and the Czech Republic provide a view inside the situation of protected areas in East Central Europe and cover areas where tourism has reached differing stages of development. Empirical results from my survey, which was taken in summer 2003 in four biosphere reserves (Sumava, Czech Republic, Aggtelek, Hungary, and Slovensky Kras and Polana, Slovakia), will show the perspective of the actors in the region. This view is important to evaluate the chance for the implementation of the ideas of sustainable tourism development.

Common Situation of Selected Biosphere Reserves

The situation in all four regions is characterized by the following:

The economic and social transition is accompanied by structural changes and breakdowns, which have substantial consequences in every part of life.

The accession to the EU defines the direction of transition, e.g. in the question of the administrative reform that is followed by a change in poli-

tical decision-making with benefits for districts and municipalities.

The case studies presented have characteristics of peripheral areas in Central Europe: three out of the four are situated at the border; they are all situated relatively far from the capital city and therefore the centre of economic growth; they are characterized by economic disadvantages, high unemployment rate and low living standards; the population density is respectively low.

Nature conservation is important in the region: they all have international approval as biosphere reserves in the framework of the Man and Biosphere Programme of the UNESCO; three of the regions achieved also the designation 'national park' offering the highest national level of protection (Aggtelek, Hungary, Sumava, Czech Republic and Slovensky Kras, Slovakia).

Tourism plays an important role, because the beautiful landscape provides great opportunities for regional development in each biosphere reserve.

All the biosphere reserves presented are involved in an international project in cooperation with UNESCO and financed by GEF¹ with the title: "Conservation and Sustainable Use of Biodiversity through Sound Tourism Development in Biosphere Reserves in Central Eastern Europe". This could be interpreted as an understanding of the pressure to act and to search for solutions for a sustainable future.

Special Situation in Each Biosphere Reserve

Biosphere reserve Sumava – Czech Republic

The area has been protected as protected landscape area (PLA) since 1963 and in 1990 it was included on the list of biosphere reserves with a total area of 160 000 ha. Concerted efforts by nature conservationists led to the most vulnerable areas being declared as a national park in 1991. As shown in the map (Figure 1), Sumava is situated in the south-western part of the Czech Republic with a common border to the German national park Bavarian Forest and in the south to Austria. Thanks to its geographical position, the area remained in its natural condition until the middle of the 20th century. It became well known for wood processing and glass making; related settlements as well as resource exploitation have changed the landscape slowly during the last centuries. After the Second World War the iron curtain was established, so the area was characterized for over 40 years by the military. The geographical situation as borderland between East and West reinforces the economic marginality and its rural character; on the other hand it has helped to sustain natural attractions and to establish protected areas. The Sumava biosphere reserve includes a substantial part of the north-east-facing Bohemian Forest with the largest forest complex in Central Europe. Due to its

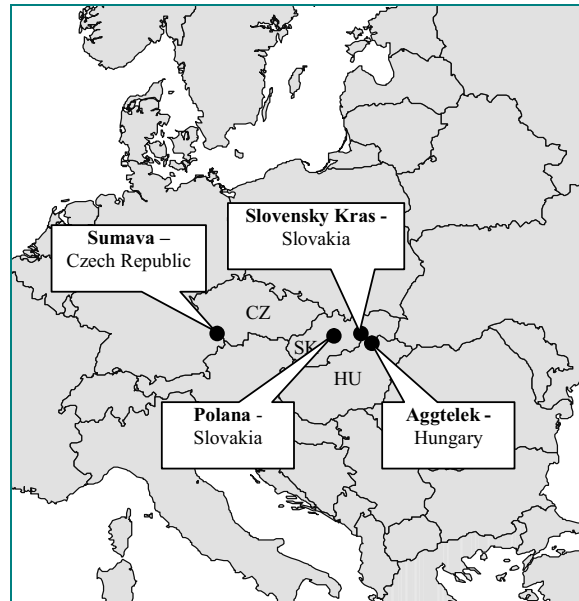


Figure 1. Map of case studies.

situation within densely populated Central Europe, its relatively high wild-life conservation, and its rich water resources, the Sumava region is often referred to as "The Green Roof of Europe". Typical for the landscape are spruce forest, peat bogs, meadows and altitudes that vary between 1 378m and 490m above sea level.

Biosphere reserve Aggtelek – Hungary

The nomination to UNESCO biosphere reserve occurred in the year 1979 and covers an area of 19 915 ha. The national park was established in the same border in 1985 with two villages inside its boundaries. The underground natural treasure, the caves of the Aggtelek Karst and the Slovak Karst were inscribed on the UNESCO World Heritage List in 1995. The morphological diversity and typical fauna make this cave system one of the most complex examples of karstic phenomena in Europe. This area with over 800 caves is divided by the state border between Hungary and Slovakia. On the Hungarian side, the landscape is dominated by small scale agriculture with small fields in strips, extensively used karst plateaus with dolines and valleys and a richness of endemic plants and animals. The two villages inside the national park represent the local economic centre on a small scale. Miskolc is the nearest city with more potential for economic growth, but it is too far away (70 km) for this region. The historical centre for Aggtelek region lies on the Slovak side with the town Roznava.

Biosphere reserve Slovensky Kras – Slovakia

Situated adjacent to the Aggtelek biosphere reserve in the south of Slovakia, Slovensky Kras (Figure 1) has a series of plateaus, ranging between 400 and 900m above sea level, that are surrounded by steep

slopes descending to adjacent basins, valleys and gorges. In 1973 the area achieved the status of protected landscape area but in 2002 this was replaced by the new establishment of the national park, with almost the same boundaries enclosing about 35 000 ha. The declaration as biosphere reserve occurred in 1977, this was the first biosphere reserve in Slovakia. It covers an area of more than 75 000 ha with the national park in its centre. Inside the biosphere reserve the population density is very low, but in the near vicinity there are towns, including the cultural and administrative centre Rožnava (20 000 inhabitants). Rožnava and many other towns in the region have a long tradition of mining and iron ore smelting. Today all mining activities have ceased, but a lot of traces can be found in the landscape. The recent settlements and economic activities are concentrated in the basins and river valley outside the national park. In contrast to the neighbouring area of Aggtelek, the region has an industrial-rural character with industries exploiting and processing raw materials, machinery and metal industry.

Biosphere reserve Polana – Slovakia

Since 1981 the area with approx. 20 000 ha has had the legal status of protected landscape area. It lies in the central part of Slovakia in the proximity of the district city Banská Bystrica. In 1990 the entire area was declared a biosphere reserve. The landscape was shaped mainly by volcanic processes more than 10 million years ago. The caldera with a diameter of up to 6 km is well visible, with altitudes of 1 300 m and up to 1 580 m (highest peak *Zadná Polana*). Within the biosphere reserve there are only few settlements with altogether 400 inhabitants. In the south, on the verge of Polana, the town Detva has over 12 000 inhabitants and central functions for the region. However, the largest enterprise (heavy industry) closed down and more than a thousand workers lost their jobs one year ago. Social problems within the biosphere reserve result mainly from the demographic situation: younger people move out of the region and the remaining population has a high proportion of elderly people. The landscape is mainly characterized by agriculture in a traditional way; mainly subsistence and not for the market. Therefore the fields are very small with the particularity of a terrace-like shape. The extensive use of the landscape assures the high biodiversity in the area.

Key aspects of tourism development in case regions

Sumava – Czech Republic



- tourism revival since the opening of the border in 1989
- large local and seasonal differences in tourist arrivals
- heterogeneous structure of accommodations: ski-resorts, big hotels but also private accommodations, little pensions, cheap cottages and big campsites
- lengths of stay: 1-2 weeks, 1.8 mio visitors per year, over 90% domestic tourism
- activities: mountain biking, hiking, downhill and cross-country skiing
- some villages are economically heavily dependant on tourism

Polana – Slovakia



- only one hotel (over 200 beds) situated in the core of the biosphere reserve
- tourism recently very weak
- landscape has high tourism potential
- mainly daily visitors or guests from the hotel (in summer business, in winter skiing)
- activities: skiing (mainly hotel guests), hiking, biking

Slovenský Kras – Slovakia



- mainly private accommodation, no bigger hotels
- tourist information in Rožnava is accommodation agency for the region
- local tourism board represents the interests of tourism industry in a broader area
- main attraction: four dripstone caves open to the public in summertime
- lengths of stay: 1-2 days, many daily visitors; main season in summer
- activities: visiting caves and cultural sites (e.g. castles)

Aggtelek – Hungary



- over 100-year old tourist tradition of visits to the biggest cave system
- at the end of the 1980s visitor numbers higher than today; the quality and the structure of tourism changed
- mainly daily visitors, lengths of stay: no more than 2 days
- main attraction: visiting the cave *Baradla* (phenomena of mass tourism)
- Aggtelek national park acts like tour operator: cave management, owns restaurants, hotel and camp sites; the national park is a strong brand mark

Aspects of Sound Tourism Development

In the following part three aspects will be examined more closely by identifying differences and similarities between the chosen regions. The results present a crucial part of the survey I made in the summer 2003. A standardized questionnaire was used to survey all the accommodation enterprises within the borders of the biosphere reserve. The different size and tourism intensity of the areas requires an adapted approach. Thus in Sumava, as the largest biosphere reserve in the Czech Republic, hotels were the main group surveyed (altogether 35 enterprises). In the other areas, the accommodations inside the biosphere reserve were supplemented by bigger hotels at the edge or in vicinity of the protected area (in Aggtelek 21, in Slovensky Kras 13 and in Polana 9 enterprises altogether). Data relating to the total number of accommodations in the biosphere reserves is not available, so it is impossible to tell if the sample is representative or not. However, if the criteria of a visitor looking for accommodation are considered (as information from the tourist information, road signs, discover by coincidence etc.) it is possible to assume that the surveyed enterprises could represent a very high percentage of all enterprises providing accommodation – roughly 90%.

The empirical emphasis is based on qualitative interviews with persons from a various range of tourism and nature protection (e.g. administration of biosphere reserve, tour operator, and regional development agency).

Potential conflicts between nature conservation and tourism development

In all four biosphere reserves the likeliness of potential conflicts between tourism and nature protection is seen as relatively small. Nearly 60 % of all surveyed persons rated the likeliness as less than 5 on a scale from 0 to 10. Approx. 12% said that there is no potential conflict at all between tourism and nature protection. According to statements which were made during the investigation, the threats to nature come from other non-tourism activities. A good example here is the industrial land use in Slovensky Kras, Slovakia: a visible contrast to the national park philosophy.

Already existing tourism activities are causing damages in temporal and spatial concentration. Phenomena known to arise from mass tourism with direct, negative consequences for nature and landscape could be found in places in Aggtelek, Hungary, and also in Sumava, Czech Republic. The main conflicts result from a low public environmental awareness (not only tourists), which could be observed in illegal garbage disposal in the forest.

The different stages of tourism development in the areas are reflected by the different ratings for the potential conflicts of tourism and nature protection.

In Aggtelek, Hungary, and Sumava, Czech Republic, we find higher values than in lower developed tourism destinations like biosphere reserve Slovensky Kras and Polana (Figure 2). Differences exist particularly in the kind of conflicts caused by the different stage of tourism development. In Sumava there are up to 1.8 million visitors annually and the main tourist attractions (Schwarzenberg timber floating canal, observation tower in Polednik, Vydra valley) are visited by several hundred tourists daily during the summer months. In Aggtelek, Hungary, the dripstone caves are highly frequented in the summer months July and August. In both areas we can find typical problems of mass tourism and the attempts to solve them through strict visitor management.

The different tourism development situations (see also key aspects of tourism in the biosphere reserves) mean that there are different possibilities and limits for tourism development and, of course, site specific 'carrying capacities'. Some experts in Sumava already regard the tourism growth as critical and do not think that the continuous growth of visitors would be a desirable goal. According to the expert opinions, the existing and potential problems occur basically in connection with (too high) visitor frequencies. Therefore visitor management, and here especially the channelling of visitor flows, is the instrument that is used most frequently and most effectively. Measures aiming to change visitor behaviour or environmental education are not the main task. Further statements of the experts regarding the reasons for conflicts fit in this picture very well: The general environmental awareness of the public (tourists as well as local inhabitants) is very low and hard measures like restrictions and prohibitions are more likely to assure a solution than soft (educational) tools - at least in the short term.

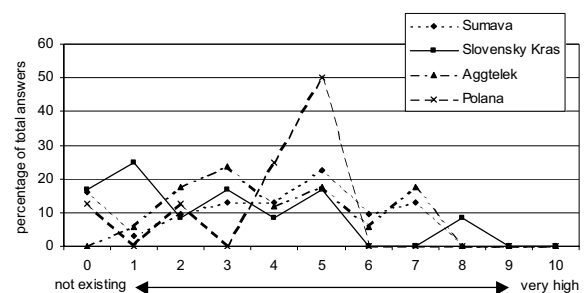


Figure 2. Rating of potential conflicts between nature conservation and tourism development

Local stakeholders in regional development

Local inhabitants are the main factor for regional development in a sustainable sense. The accommodation questionnaire also asked about the willingness to participate in regional decision-making. In summary, it can be stated that the general readiness to participate is high, over 60% answer this question posi-

tively. A total refusal of participation is stated only rarely (8%). The interpretation lies in the fact that the stakeholders in the tourism sector have a strong interest in taking part in decision-making. However, many remain uncertain. Thus, there is interest in taking part in regional decision-making, but not without conditions.

In contrast to this, many experts share the opinion that local people show altogether little interest in regional development. According to statements in all four biosphere reserves, it is very difficult to motivate local people to take part in processes which go beyond individual short-term profits.

A strong faith in the capability of the state is illustrated by the futile wait for national control and financial support: a common behaviour amongst the local people which is described by experts as an effect from the past socialist era.

The regional differences as to whether the accommodation providers would participate in regional decision-making processes is shown in Sumava, Czech Republic (see Figure 3). Here, the number of persons who answer with 'don't know' is higher than in the other biosphere reserves. Only a few categorically reject participation. In the biosphere reserve Polana, past experiences with participation procedures were visible, with some of them negative ("the talking didn't bring solutions", an owner of a pension). Nevertheless, a general readiness can also be recognized in Polana. One third of the respondents answer with 'don't know', but during the interviews it became obvious that the reason for that lies in the scepticism of participation itself. A categorical refusal is stated only rarely. The broad agreement to this question is remarkable in the biosphere reserve Slovensky Kras and the adjacent biosphere reserve Aggtelek, with approx. three quarters of the total responses being positive.

In addition, there are differences regarding the regional identity. According to expert statements, Sumava has a relatively high regional identity despite its long period as a border area at the iron curtain. Slovensky Kras and Aggtelek have a common historical past: before the Second World War this area

was a Hungarian district. The name from this time is still in common use: *Gömör Torna Karst*. On the Slovak side the strong Hungarian minority identifies itself very much with this region and its Hungarian history.

The region around the biosphere reserve Polana is hardly known as a protected area. However, it gives the name for the micro region *Podpolana* which is adjacent in the south.

The degree of networking between regional stakeholders is quite different in the biosphere reserves. In the biosphere reserve Sumava, Czech Republic, the tourism sector lacks a controlling body that can represent the interests of the tourism, like a local tourism board. Likewise, a central service providing information about accommodation for the entire area is missing. In the biosphere reserves Aggtelek, Hungary, and Slovensky Kras, Slovakia, this service is provided by the tourist information, which has a list of accommodation in the area. In the biosphere reserve Polana, tourism has not yet developed sufficiently to make a tourism organisation necessary.

Influence of the protected area on tourism development

The questionnaire asked for the participants' opinion on the influence of the protected area on tourism development in the region. On a scale from -4 (very repressive) to +4 (very stimulating), over 50% of the answers lie in the range between +1 and +3; only 13% of all answers are negative.

There are strong differences in the answers between the examined regions (Figure 4). In the two areas where tourism is more developed, Aggtelek, Hungary, and Sumava, Czech Republic, the answers are more positive than in the other not so well developed areas in Slovakia. Here, the interpretation might be allowed that the tourism stakeholders see that the protected area is partly responsible for the tourism development which has already taken place. The variation of the answers is very high, particularly in Sumava, Czech Republic: 10 of 28 responses have the two highest values and four responses lie in the negative range.

This mainly positive evaluation of the influence of the protected area on tourism arises mainly from the benchmark national park, because biosphere reserve as a type of protected area is hardly noticed. It can be stated that for the surveyed people working in the accommodation sector it does not play a great role whether this area is protected as biosphere reserve, protected landscape area or national park. According to the statements of the experts, the inhabitants have only a little knowledge of the concept of biosphere reserves, if they have any idea at all what this is. The main idea of the biosphere reserves, to be model regions of sustainable development², is not communicated sufficiently in the area. On some information boards in Sumava, Czech Republic, tourists have the

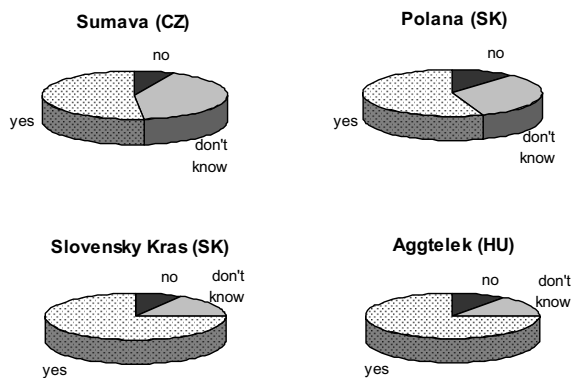


Figure 3. Would you take part in decision-making in your area?

chance to learn that the national park is a part of the broader biosphere reserve through interpreting the map where the borders of the protected areas are shown. If visitors look for deeper information about the conceptual and practical differences, they will have some problems finding it. In Slovensky Kras, Slovakia, the term biosphere reserve appears only in the logo of the national park; any general information beyond that is missing.

In all four protected areas the term biosphere reserve is not communicated sufficiently. As a logical consequence, the biosphere reserve is hardly noticed by the population and other protection categories (primarily the national park) dominate the situation.

Even the experts do not value the economic, tourist and multiple opportunities of the international approval by UNESCO as a biosphere reserve. They primarily regard the nature conservation function of the biosphere reserve as very helpful: the differences to the concept of national park are not very clear. Knowledge about biosphere reserves is missing among the tourism experts, or it is also determined by the classical interests of nature conservation.

Large differences exist in the acceptance of the protected area. According to expert statements, the overall acceptance is low in all examined areas. The chance to participate in the decisions during the establishment of the protected area was not granted to the inhabitants of any of the biosphere reserves. On the other hand, it can be stated that the acceptance is higher in areas where the national park acts as a large employer (in Aggtelek, Hungary, and Sumava, Czech Republic). In the biosphere reserves where daily life is not affected by the protected area (Polana and Slovensky Kras, Slovakia), the acceptance is accordingly lower. Problems of acceptance can emerge if the nature conservation rules lead to hard restrictions for development. This is what happened in the case of the municipality Horni Plana in the biosphere reserve Sumava, Czech Republic, where the mayor would like to build a new skiing area in the national park but has been refused permission.

For the administration of protected areas, the existing opportunities to act are very different in the

surveyed biosphere reserves. In Aggtelek, Hungary, the national park is at the same time regional authority for nature conservation and acts as a tour operator. They have to earn over 40% of their budget themselves. This is only possible because the main attractions (here: dripstone caves) are in the ownership of the national park itself. On the Slovak side of the karst region, the caves (which are also the main attraction here) are under the administration of the national authority for caves in Slovakia, which has its office outside the region. In addition, the Slovak national park only has the authority to give statements in questions relating to nature conservation. The biosphere reserve Slovensky Kras only became a national park in the year 2002; this was followed by crucial changes in the administration (e.g. change of the director, increase in employees) that are continuing today. The national park Sumava, Czech Republic, is an economically important stakeholder in the region because of its activities in wood processing and forestry. Polana is of lesser importance since it is "only" a protected landscape area. The administration of the biosphere reserve is also responsible for the tasks of nature conservation in a larger district.

The administrations of the four biosphere reserves all have in common the fact that they do not have staff or a department whose tasks exclusively concern the biosphere reserve.

These different positions of the administrations in the region of the biosphere reserves are the starting point for the evaluation of the regional role. In the biosphere reserve, the goal and the task are to manage tourism in such a way that it does not endanger the interests of nature conservation. In Polana and Slovensky Kras, Slovakia, the experts stated that it is not necessary to act because the potential conflicts between tourism and nature protection are too small and not relevant. Also in Sumava, Czech Republic, the national park sees its task as managing, not developing tourism. The idea of being an engine for regional development can be found in the Hungarian biosphere reserve but at the very beginning. The national park Aggtelek is in fact the main stakeholder in the region. The two villages situated inside the national park are a kind of regional centre for regional development and economic growth. The national park is the biggest tour operator with good marketing in the area.

Summary and Outlook

In the four biosphere reserves presented, the main hope for the development of the region lies in tourism. On one hand, there are statements reflecting a critical view of this hope that tourism development will bring quick economic effects for the region. One expert refers to the time 10 years ago when everybody in the region believed that economic growth would come through tourism development: he points out that so far tourism has hardly brought any substantial improvements to the region. On the other

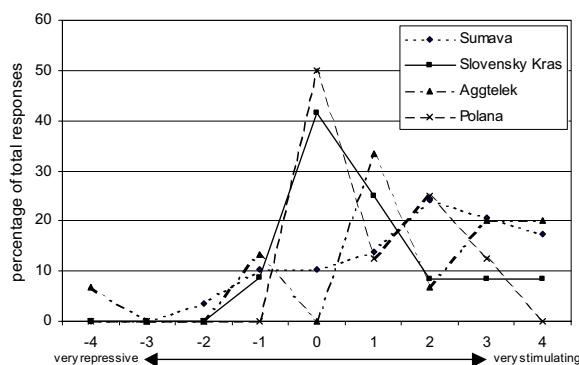


Figure 4. Influence of the protected area on tourism development.

hand, most of the experts agree on the fact that there is no alternative to tourism development in the respective regions. Thus tourism remains the economic field that brings hope for an improvement in the economic situation and for a better life.

The fact that the protected areas all have international approval as biosphere reserve is not communicated sufficiently within the areas. The chance that lies with the concept of biosphere reserves has not been recognised. The protection category national park is better known in the public, because everybody can associate something with a national park, while the term biosphere reserve remains mysterious. Good evidence for this is provided by the comparison with the biosphere reserve Polana, Slovakia, which is not approved as national park. The situation here is dominated by the relatively low national status of protected landscape area (*Chranena Krajinná Oblasť*) which overlaps the international protection status. According to statements of local tourism experts, few people in the region know that a biosphere reserve is situated here (some do not even know that there is a protected area). The people working in tourist accommodation were asked in the questionnaire about their connotations concerning the term biosphere reserve. The clear result can be characterised by terms which are strongly connected to nature conservation or the natural landscape ("clean air", "protection of plants and animals" etc.). Terms that express the concept of biosphere reserve can seldom be found; a harmonious way of human utilisation of the landscape and at the same time protection of nature and culture. It is noticeable that in their answers, the respondents often do not make a distinction between the biosphere reserve and the national park (or the protected landscape area).

For regional development the cross-linking between local stakeholders is of great importance. It is particularly important in tourism if the goal is sustainability for the regional development. In all examined biosphere reserves there is a lack of networks, which is expressed in the experts' demand for the establishment of new networks and the maintenance of existing ones. Three of the four biosphere reserves are border regions. The contacts beyond national borders play an important role here. The opportunities to request financing in the European Union are much more promising if you have transboundary cooperation. Therefore we can find in this context some international projects in the biosphere reserves financed, for example, by the European Union and the United Nation Environmental Programme (UNEP).

Tourism is one of the key factors for sustainable development in the biosphere reserves examined, since this sector can be the economic engine for conservation of cultural and natural values. But tourism can have a positive effect on local people on other fields, too: people are probably more likely to respect their own natural and cultural surroundings if they

experience the value of these through being confronted by visitors looking for just that. This might also help to avoid the consumptive tourism developments – those that exceed the carrying capacity of the vulnerable natural and cultural landscape – like large scale ski facilities or extreme sports.

The largest problem within regional development in biosphere reserves is the lack of initiatives from local inhabitants, who should be the main stakeholder for implementing sustainability. The reason for this situation is often identified as the past socialist system: there might be still a strong faith in the capability of the state to regulate and finance at the regional level, as it was usual in the socialist system. In the region there is a divided group of inhabitants. On one hand there are active and enthusiastic people who wish to develop the region through sound tourism development. These people are mainly residents who have not been living in the area for generations but who have moved into the area out of choice. This is not specific only for these regions but can also be found in other rural areas throughout Europe. On the other hand there are the main inhabitants of the villages situated close to the area who are not open minded and who are often suspicious of any changes in their life. In general, they do not see the connection between nature conservation and its value for the economic growth in the region. They often have to struggle with low living standards and do not understand the importance of being able to help oneself. To act on one's own responsibility is not something easily learnt in just a few years. It is a hard task to reach the local inhabitants, but in the long run there is no other chance for a sustainable future than to integrate them.

The scientific challenge is to develop and recommend suitable measures and tools for sustainable tourism development with the active participation of all regional stakeholders. Further should be examined, whether the concept of the biosphere reserves with its opportunities could play a role as the economic engine of regional development and what kind of basic conditions and institutional framework are needed. In this context, the tourism development has to be observed critically, in order to guarantee the satisfaction of the criteria of the overall goal to promote sustainable tourism while maintaining close contact to local people.

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¹ GEF = Global Environment Facility – established in 1991 and helps developing countries fund projects and programs that protect the global environment

² As described in the Seville strategy from 1995 (UNESCO 1996, UNESCO 2001)