

The Šumava Biosphere Reserve – historical reflection on institutional arrangements

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Abstract

This article describes changes in the institutional arrangement of the Šumava Biosphere Reserve from 1990 up to the present time. Case study was used as the key method reflecting outcomes of longitudinal research accomplished by the authors in the area. Three institutional models of biosphere reserve functioning are presented. Regardless of its institutional affiliation, the concept appeared to be used only expediently, depending on availability of financial resources. Nowadays we can state that the concept of biosphere reserve has been internalised by the state administration of nature conservation. In this situation, activities of the biosphere reserve have innovatively focused on projects building on the principle of nature and landscape conservation-by-use.

Key words: nature conservation, protected area management, biosphere reserve

INTRODUCTION

UNESCO biosphere reserves (BR) are supposed to be the areas in which the following three basic missions are simultaneously met: (1) conservation of biological diversity/nature; (2) research, education, and awareness raising; and (3) promotion of sustainable development (JENÍK 1996, UNESCO 1996). Hence they can be considered as an attempt to practically implement the concept of integrated management of protected areas. Biosphere reserves, based on their definition, have thus become model territories for testing practical applicability of the principles of sustainable development (UNESCO 2008). In institutional terms, this concept is an open one that considers all stakeholders (scientists in natural and social fields of expertise, different interest groups – related to the conservation of nature as well as those aiming to foster development of the territory, representatives of administrative bodies, associations and local population) to be partners encouraged towards mutual cooperation and participation in the biosphere reserve management. Searching for a balance between the conservation of biodiversity and socio-economic and cultural development is concurrently seen as a dynamic process of innovation, learning through interaction, with participation being the key part of it (e.g. LUNDVALL 1997, KUŠOVÁ et al. 2008b).

In the Czech Republic, the particular types of especially protected areas are defined by the Act No. 114/92 Coll., the Nature and Landscape Protection Act. Protected areas are classified according to their importance, the method, and subject matter of protection. The following categories are distinguished: national parks, protected landscape areas, national nature re-

serves, nature reserves, national nature monuments, and natural monuments. The biosphere reserves, however, have not been included among the categories of large-scale nature conservation according to the Czech legislation used in practice. The practical application of the concept of biosphere reserves thus has no legislative support in the Czech Republic. The status of a biosphere reserve is generally perceived only as an internationally recognised certificate of quality, “labelling” the areas already protected by the Czech legislation, but lacking legal enforceability (URBAN 2006). This ambiguous situation leaves the state nature protection only very limited space for implementing this concept in practice (KUŠOVÁ et al. 2008a). On the other hand, the a priori legislative “vacuum” opens space for local initiatives and may thereby encourage establishment of local groups that can pragmatically use this concept for promoting their interests. Since 2003, three institutional models existing in the Czech Republic have attempted, more or less successfully, to apply the biosphere reserve concept in practice. The first model was based on exclusive association of the biosphere reserve with the state administration of a particular protected landscape area (the Křivoklátsko BR, the Třeboňsko BR, and it was also the starting position in the Šumava BR). The second model was implemented as cooperation between the administration of a particular protected landscape area and a non-profit organisation implementing the biosphere reserve agenda (the Krkonoše and Bílé Karpaty BRs). The third model was represented by the Lower Morava BR and takes the form of a public benefit organisation.

The objective of this paper is to describe institutional development of the Šumava Biosphere Reserve in the Bohemian Forest (Šumava in Czech) since 1990, when it was declared within the UNESCO MaB international programme.

MODEL AREA, MATERIAL AND METHODS

The Bohemian Forest is a border mountain range located in southwest Bohemia. It can be considered a historical cultural landscape that has undergone a very dynamic development in the post-war period. Attempts to harmonise nature conservation and local development have existed here for a long time (e.g. KŘENOVÁ & VRBA 2014). Large-scale nature conservation has been applied here since 1963, when the Šumava Protected Landscape Area (PLA) was declared, the largest PLA in the Czech Republic. Granted by the biosphere reserve status in 1990, this area gained an internationally recognized certificate of “nature quality”. In 1991, the most valuable natural part of the area was declared a national park (Fig. 1).

There were two factors that favoured the Šumava Biosphere Reserve as a model area. Potential niche of the biosphere reserve in the life of the region was articulated as early as in the middle of 1990s (JENÍK & PRICE 1994, PRICE 1996). A quarter century of its operation was considered to be a period sufficiently long to reveal developmental trends. Equally important is that the relationship between local people and nature conservation in the Bohemian Forest region has been the subject of our research since 1995. The longitudinal research had an iterative character (CHECKLAND & SCHOLLES 1990), in which local people became not only sources of information and recipients of results, but also members of the research team and took part in the formulation of research objectives. Following this scheme, we combined application projects as interventions triggering changes, and scientific projects, which served as tools for the evaluation and theoretical reflection of these changes. The intervention-analysis cycle was conducted in the years 1995–2013, making use of projects coordinated by the authors (Table 1).

In the first two in-parallel-running projects an approach was used taking into account multiple stakeholders (interest groups) present in the area that might have had conflicting interests and hence also different development strategies. The aim was to find a consensus

among particular key stakeholders as to the vision of development of the region. The state nature conservation bodies were also involved.

The National Park Administration was identified as the player having the most powerful “negotiating position” in the territory. Thanks to its strong social role, resulting, among others, from available financial resources, it had a chance to become the natural initiator of building a common vision and strategy for development of the region as a whole (BARTOŠ et al. 1998). Based on the research results, it was also possible to suggest that “soft” recreational use of the area was perceived as the most suitable development strategy by both local elites and the general public (TĚŠITEL et al. 1997).

The analysis of the Bohemian Forest region as a destination of environment-friendly tourism was conducted within two projects (3 and 4 in Table 1). The outcomes of the research were both published (TĚŠITEL et al. 1999, 2003, 2006, 2007, BOUSSET et al. 2007) and regularly handed over to the most important key players in the territory – the Administration of the Šumava National Park and Protected Landscape Area (NP and PLA) as well as the Regional Development Agency of Šumava (RDAŠ). Selected results of the research served as an input information for defining the “Concept of sound tourism development in the Šumava Mts.” in 1995, and its updates in 2001 and 2007.

The analysis of possibilities for practical application of the participatory approach in the management of large-scale protected areas was conducted as an empirical study comparing the situation in three Czech biosphere reserves: the Křivoklátsko BR, the Třeboňsko BR, and the Šumava BR, institutionally represented by their respective administration offices (project 5 in Table 1). The UNESCO concept of biosphere reserve was used as a standard for

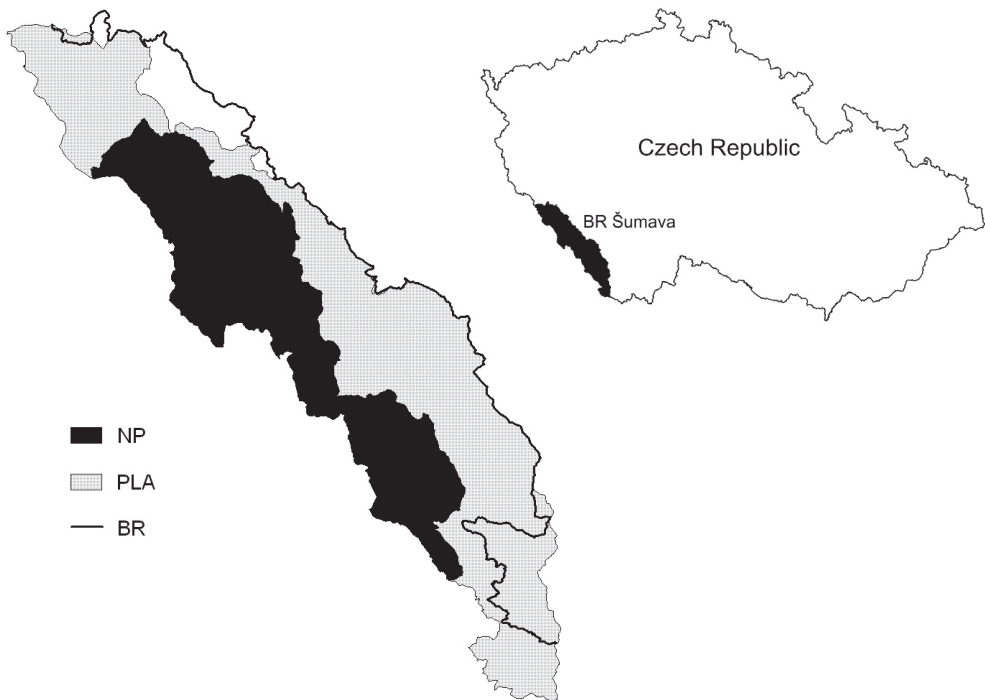


Fig. 1. Map of the Šumava Biosphere Reserve (by Karel Matějka, IDS).

Table 1. List of realised projects.

No.	Project identification	Period
1	Sustainable development strategy for Šumava Biosphere reserve, UNEP-GEF project on Biodiversity protection in the Czech Republic, World Bank	1995–1997
2	Carrying capacity and revenue mechanisms for the Šumava Biosphere reserve, UNEP-GEF project on Biodiversity protection in the Czech Republic, World Bank	1995–1997
3	The Role of Tourism in the Development of Šumava Region, Open Society Foundation	1999–2001
4	SPRITE: Supporting and Promoting Integrated Tourism in Europe's Lagging Rural Regions, EU 5 th Framework Programme	2001–2004
5	Participative management of protected areas – key to minimize conflicts between nature conservation and socio-economic development of local communities, the Ministry of Environment of the Czech Republic	2003–2005
6	Conservation and Sustainable Use of Biodiversity through Sound Tourism Development in Biosphere Reserves in Central and Eastern Europe, UNEP-GEF	2005–2008
7	PANet 2010 – Managing Functional Networks of Protected Areas, Interreg III B, CADSES	2006–2008
8	VITAL LANDSCAPES – Valorisation and Sustainable Development of Cultural Landscapes using Innovative Participation and Visualisation Techniques, Interreg Central Europe	2010–2013
9	Protected Areas – Social Deal on Nature Protection, Czech Science Foundation	2011–2013

evaluating the efficiency of state administration in nature conservation (KUŠOVÁ et al. 2005a,b, 2006, 2008a,b, TĚŠITEL et al. 2005a,b). It appeared that the hierarchical structure of the state administration failed to create appropriate conditions for application of the third function of each biosphere reserve, which is the support to sustainable regional development.

We therefore paid attention to an analysis of horizontal organizational structures, namely informal networks. Their potential for the application of the biosphere reserve concept in the Bohemian Forest region was identified within two subsequent projects (6 and 7 in Table 1). The UNEP-GEF project was, in fact, a “manual” using sound tourism to demonstrate the possibility of implementing “the nature conservation through its sustainable use” model in practice. The PANET 2010 project was then a scientific reflection of the implementation process (KUŠOVÁ et al. 2009, TĚŠITEL & KUŠOVÁ 2010, ZELENKA et al. 2013).

The following two projects, one implementation-oriented and one theoretical (8 and 9 in Table 1) analysed the chance of the UNESCO biosphere reserve concept to practically serve as a communication platform aimed at reconciling the interests of nature conservation with local economic aspirations in the Bohemian Forest region (KUŠOVÁ & TĚŠITEL 2014, TĚŠITEL et al. 2014).

The longitudinal research addressed generally the relationship between nature conservation and socio-economic development. It was thematically structured to form three explanatory frameworks – the quality of life of people living in biosphere reserves, social acceptance of nature conservation measures, and institutional arrangements of the biosphere reserve (Fig. 2). By doing so, we applied a strategy of triangulation (e.g. KUŠOVÁ et al. 2008a), which combined both quantitative and qualitative methods of collecting and analysing empirical

data. This publication accentuates the third of the above mentioned explanatory frameworks (Fig. 2).

Case study (ODELL 2004) was chosen as the key method used for describing the changes in institutional arrangements of the Šumava BR. Information necessary for the description of the case was obtained by using a secondary analysis of interim and final reports of the projects mentioned in Table 1, and the information presented in selected research publications of the authors.

RESULTS AND DISCUSSION

In the mid-1990s, agriculture, forestry and tourism were suggested to become the economic activities appropriate to bridge the interests of nature conservation and those of the local economic development in the Bohemian Forest region (JENÍK & PRICE 1994, PRICE 1996). Finally, it was primarily the environment-friendly tourism that has become the backbone of local economy. Furthermore, thanks to its parameters (TĚŠITEL et al. 1997, SHARPLEY 2000, IRA 2005, NOLTE 2005, SAXENA et al. 2007), it has become a moment of consensus in the area and as such has been used to build a platform of communication between representatives of nature conservation interests and those of economic aspirations of the region.

The fact that the biosphere reserve is defined as a concept, i.e., as the sum of principles wherein the only requirement is that the principles be implemented by such means that are “tailored” to the given area (UNESCO 2008), opens a wide range of possibilities, including institutional forms used for this application. In the case of the Šumava Biosphere Reserve, three institutional models were analysed. The first model was based on the exclusive affiliation of the biosphere reserve with state administration authorities. In this model, the biosphere reserve institution was an organizational part of the Administration of the Šumava NP and PLA. The second model was implemented in an attempt to create an ad hoc network of projects and associated actors. Even in this case, the institution of biosphere reserve remai-

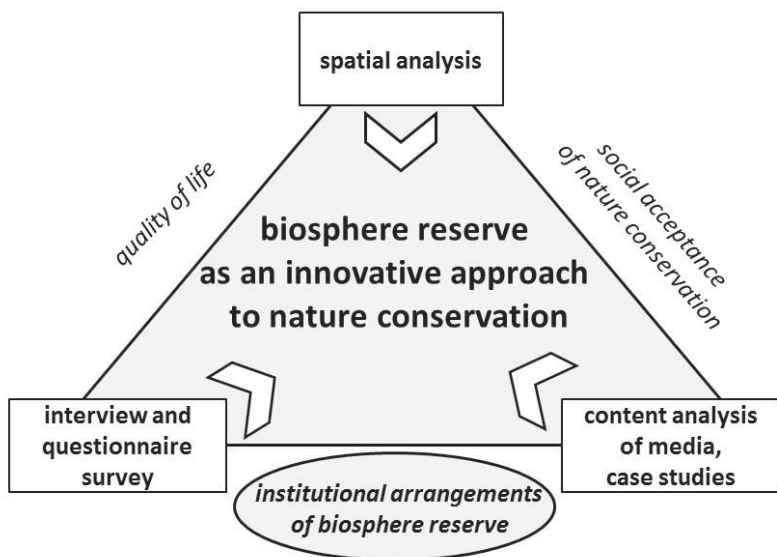


Fig. 2. Scheme of triangulation (according to Kušová et al. 2008a).

ned a part of the state administration, which, however, acted as one of the partners rather than as a leader. The third model was based on the idea of shared responsibility for development of the area. The Memorandum of Understanding defined the division of labour between the two partners in putting the biosphere reserve concept into practice. The Administration of the National Park and Protected Landscape Area has become the guarantor for the natural pillar, namely the conservation of biodiversity and sustainable structure and functioning of ecosystems, nature-oriented research and environmental education, while the Regional Development Agency has guaranteed the socio-economic pillar, i.e., the protection of cultural diversity, environmentally-friendly development of the territory, socio-economic research, and general educational and development projects. In this model, the institution of biosphere reserve was moved and has become an organisational part of the Regional Development Agency of Šumava. The intention was to avoid increasing institutional density in the territory by establishing new organizations, by entrusting the implementation of the biosphere reserve concept to an already existing institution.

Two major events occurred during the period under review (1995–2013), related to the practical application of the UNESCO biosphere reserve concept in the Bohemian Forest region. The first event, realised in the framework of the project 7 (Table 1) was an effort to replace (or at least supplement) the existing fixed structure of state administration featuring a clearly defined hierarchy of power distribution by a horizontal network structure based on the principle of equality, voluntary cooperation, and shared management, where the main link is the mutual trust between all stakeholders (e.g. ELDEN & CHISHOLM 1993). The project could be considered as a set of nine interlinked activities spanning from those having very practical outputs to activities producing strategic planning materials. “Establishment of a System of Cross Border Tourist Trails”, “Training of Local Guides”, and “Identification of a Potential of the Šumava Biosphere Reserve for New Touristic Activities” can be seen as the most practical outputs of the project, having immediate impact on the territory. There were two activities within the project directly supporting sustainable forms of tourism – the “System of Financial Incentives” project, in the form of a local grant scheme aimed primarily at improving small-scale touristic infrastructure, and the “System of Certification of Local Products and Services” project. The strategic activities include the participation in the projects in preparation, namely the “Concept of Sustainable Tourism Development in the Šumava Region”, “Institutional Analysis of the Šumava Biosphere Reserve”, and in designing an electronic “Database on Cultural Heritage of the Šumava Biosphere Reserve”. Designing of a platform for information exchange among local mayors, representatives of nature conservation authorities and other key stakeholders became an inseparable part of the project, manifested in the form of a series of round-tables and training courses.

The “legislative vacuum” concerning the biosphere reserve appeared to be an advantage in this context (KUŠOVÁ et al. 2008b, 2009), since it has “liberated” the individual players from their bred-in-the-bone schematic viewpoints. The project broke the behavioural stereotypes of particular personalities involved. Being “mentally free” from a legal framework, they behaved rather cooperatively, concentrating on achieving concrete outputs instead of pushing forward official doctrines of particular institutions they represented. This situation was largely in line with the theories of regional development that claim micro-social processes to be more important for development of a locality, rather than impersonal macrostructures, as they define a shared space of landscape as the “living place” (AMIN 2001, KUŠOVÁ & TĚŠITEL 2014).

The second event, realised within the project 8 (Table 1), was the replacement of the ad hoc network structure with the hybrid model based on the clearly defined cooperation between the Administration of the Šumava NP and PLA and the Regional Development Agency of Šumava,

motivated by an effort to create a more stable organizational structure (e.g. LAGENDIJK & CORNFORD 2000). This established a regionally defined management model based on the principle of shared responsibility for development of the given region. This model introduced an entirely new and not quite trivial situation for both the National Park and the Development Agency. It presented a certain challenge for the employees of both institutions, as they were required, among other things, to identify themselves with the newly established institution, the activities of which only partially overlapped with the activities traditionally performed by the original institutions. Under this scheme, the Administration of the Šumava NP and PLA “lost” its leading role, they were used to play, and became a “mere” partner. In addition, it was expected that development-oriented activities would be more supported, compared to the situation when the BR was the institutional part of the state administration in the protected area. It turned out, however, that the very concept of biosphere reserve inherently had a great potential to “calm down” the situation since it was “coined in the workshop” of nature conservation. In this context, it was easier for the representatives of the state administration of nature conservation to accept the new role of the partner without “losing face” in discussions about the development of the region with other players.

The analysis of historical and organisational sequence showed that regardless of its institutional affiliation, the concept of biosphere reserve was used as the postmodern “fluid” structure (BAUMAN 2002). Neither of the above-mentioned institutions used the concept on permanent basis, but only expediently, in cases when project funds were available, allowing implementation of various activities. The outputs/activities of these projects, if proved to be promising investments, were subsequently enacted as the part of the standard portfolio of “services” provided by these institutions. For example, the system of “Local Guides” was “adopted” by the Administration of the Šumava NP and PLA and included in its regular portfolio of services provided for the public¹, and further enriched by providing the system of “Guides to the wilderness” to the public. In the case of the RDAŠ, the certification system “Šumava – originální produkt®” (Šumava original product), originally promoting exclusively local products, was expanded to cover as well certification of services related to environment-friendly tourism². The system was further developed and nowadays, it includes as well the system of “certification of experiences”.

As mentioned earlier, the concept of biosphere reserve represents a new approach based on the principle of social inclusion and the protection of biodiversity through its sustainable use. It is defined as a “bottom-up” activity pursuing to find a locally acceptable, i.e. unique solution of the situation, when the balance between nature conservation interests and socio-economic ambitions of local inhabitants is being searched for. The strategy of nature conservation was defined, inter alia, by the Act No. 114/1992 Coll., the Nature and Landscape Protection Act, which has complemented the exclusive approach to nature conservation with an inclusive one (PRCHALOVÁ 2010). Thus, it defined the requirement stating that not only the state but also localities be involved in the nature conservation, in the form of co-management. It created completely new setting at that time and, consequently, adequate instruments started to be searched for practical coping with this situation.

Any change in a paradigm implies a change in attitudes and behaviour of a society. This, however, must overcome certain “resistance” caused by the inertia of the social system. In the Czech Republic and de facto throughout all of Central and Eastern Europe, there was certain delay compared to the countries of Western Europe in the practical application of integrated nature conservation. Although the legislative framework created the formal opportunity to change the perspectives, its practical implementation faced multiple practical

¹ <http://www.npsumava.cz/cz/1072/sekce/pruvodci-sumavou/>

² <http://www.regionalni-znacky.cz/sumava/cs/dalsi-tiskoviny/>

problems of that time. Most of the existing participatory models were based on the experience obtained in the environment of relatively stable democracies (HALL 2000). However, the countries of Central and Eastern Europe at that time lacked the sufficiently established tradition of democratic “multi-level decision-making model”. The main problem was the “cognitive lock-in” of the state administration in communication with the public (e.g. KLUVÁNKOVÁ-ORAVSKÁ & CHOBOTOVÁ 2010, PETROVA 2014). Private companies, associations and non-governmental organizations were perceived as opponents rather than partners (IMPERIAL 1999). Institutional problems could be briefly summarised in the statement that the application of a participatory approach was not compatible with the principle of state administration functioning as a bureaucratic organization based on the priority of the decision-making centre (e.g. PARTO 2005, STOLL-KLEEMANN et al. 2006).

Although appropriate legislative framework was available, Administration of NP and PLA, as the lower-ranking element in the hierarchical model of the state administration, kept the logic of functioning of bureaucracy (e.g. KELLER 2007) and waited for clear and uniform rules that would come from the above-rank to regulate its behaviour. However, in the 1990s, the use of new concepts had to be learned by the Ministry of the Environment itself. Therefore, the entire system lacked operational rules for coping with the new situation. The UNESCO biosphere reserve concept was therefore used as a “trainer” of some kind, where the Administration of the Šumava NP and PLA could practice and try the role of the partner. The use of the “trainer” in the Bohemian Forest region was facilitated by the fact that this activity was initially supported by international projects. Later, the Ministry of Environment began to implement their own projects, which allowed the Administration of the Šumava NP and PLA to test the application of participatory methodologies of Local Agenda 21 when communicating with other users of the area. As an example of such a project, the “Krajinný integrovaný plán rozvoje regionu – KIPR” (Integrated Region Development Plan), launched in 2012, can be used (KOPP 2014).

We can state the process of inclusion of local interests into the strategy of nature conservation lasted twenty-five years in the Bohemian Forest territory. Today we can conclude that the state administration in nature conservation in the Bohemian Forest applies (or at least tries to apply) the integrated management of large-scale protected areas as the standard. Hence, the biosphere reserve concept is no longer needed for them. It was replaced with the rules introduced directly within the structure of the state administration, i.e. the concept of biosphere reserve was internalised by the state administration. Loss of importance of biosphere reserve concept for state nature conservation authorities can be, indirectly, documented by the fact that since 2012 the headline “biosphere reserve” disappeared from the home page of the Ministry of the Environment of the Czech Republic. Nowadays it can only be found in the section of “international cooperation” which needs to be intentionally searched for by clicking several levels lower.

In this situation, the biosphere reserve in the Bohemian Forest has changed its focus to promotion and implementation of projects related to the sound use of local and regional natural and cultural heritage, not necessarily directly related to nature conservation, but relying primarily on the principles of landscape protection through its sustainable use. It can be documented, for example, by currently implemented project “Šumava Biosphere Reserve, a good place for living”, co-funded by the European Union, Cross-Border Cooperation Programme Objective 3 Czech Republic – Free State of Bavaria 2007–2013, which aims to enable a comprehensive promotion of the Šumava Biosphere Reserve in the region, that includes, inter alia, leaflets, film and brochures³.

³ <http://www.br-sumava.cz/brozury/>

CONCLUSIONS

In Europe, integrated nature conservation is provided through biosphere reserves and national parks (HIRSCHNITZ-GARBERS & STOLL-KLEEMANN 2011). The mission of a national park, in terms of integrated nature conservation, has been defined similarly to that of a biosphere reserve. For example, Act No. 114/92 Coll. mandated the establishment of the National Park Council, properly representing the self-government of municipalities located on the National Park territory. In the Bohemian Forest, two institutional instruments were available in the 1990s, both aiming at implementing integrated nature conservation in a large protected area, namely the Šumava NP and PLA (PLA serving as a buffer zone) and the Šumava Biosphere Reserve. The Šumava National Park, as a representative of state administration continued to practice a centralistic model of management and decision-making, characterised by the dominance of state enforcement of integrated nature conservation. The Šumava BR, on the contrary, was ahead of its time. The idea of horizontal (social) networks as organisational structures was far from being understood at that time. The step-by-step practical implementation of the idea of integrated nature conservation was substantially boosted by “external pressure” in the Bohemian Forest. By means of internationally funded projects, the Administration of the Šumava NP and PLA gradually became involved in “developmental” activities in the region, based on the principle of “conservation by use”.

Based on the analysis conducted, we can conclude that during its existence, the Biosphere Reserve has succeeded to become an institution integrated into the socio-economic structure of the Bohemian Forest region. Furthermore, it has kept its innovative potential by having successfully occupied the niche of “implementation of developmental projects based on sustainable use of regional natural and cultural heritage”, postulated by the UNESCO in its “Seville Strategy” for Biosphere Reserves (UNESCO 1996). As such, the Šumava Biosphere Reserve can serve as an inspiration to the other Biosphere Reserves in the Czech Republic and possibly also elsewhere.

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