

**MATEJ BEL UNIVERSITY IN BANSKÁ BYSTRICA
FACULTY OF ECONOMICS**

**STRATEGIC PLANNING
FOR THE DEVELOPMENT OF BIOSPHERE RESERVES
DISSERTATION**

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Study Programme: Public Economics and Policy

Field of Study: Economics and Management

Department: Department of Public Economics and Regional Development

Dissertation Supervisor: Assoc. Prof. Katarína Vitálišová, PhD.

Declaration of Originality

As the author of this dissertation, I declare that I have prepared it independently and in compliance with ethical standards of research integrity. In preparing the dissertation, I also used the works and ideas of other authors, which I appropriately acknowledged and included in the accompanying list of bibliographic references. I also used selected artificial intelligence tools as support for searching, collecting, analysing, and translating planning documents of biosphere reserves across Europe; recoding open-ended questions from questionnaire surveys conducted among residents, stakeholders, and tourists in biosphere reserves in the Slovak Republic; and translating and creating figures based on planning documents of foreign biosphere reserves as examples of good practice for developing the methodology of strategic planning for the development of biosphere reserves. I did not manipulate the research material, conceal the data obtained, or intentionally alter the research results.

Banská Bystrica, 28 April 2026

.....

signature

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ABSTRACT

REHÁKOVÁ, Mária, Ing. Mgr.: Strategic planning for the development of biosphere reserves. [Dissertation Thesis] / Mária Reháková - Matej Bel University, Banská Bystrica. Faculty of Economics; Department of Public Economics and Regional Development. – Supervisor: doc. Ing. Katarína Vitálišová, PhD. - Qualification degree: Philosophy doctor – PhD. - Banská Bystrica: Faculty of Economics, MBU, 2026. 179 p.

The aim of the dissertation is to examine the current state of strategic planning for the development of biosphere reserves in Slovakia and on the European continent based on a theoretical definition of the concept of biosphere reserves and current approaches to their management and development planning. Based on this analysis and examples of good practice from abroad, the dissertation proposes a methodology for strategic planning for the development of biosphere reserves and recommendations for its implementation. The subject of the dissertation is strategic development planning. The object of the dissertation is four biosphere reserves in Slovakia and 205 biosphere reserves located on the European continent, without overlapping into the Asian continent. The dissertation is divided into four chapters. The first chapter offers a theoretical definition of the current state of strategic planning for the development of biosphere reserves. The second chapter presents the subject and object of the study, the aim, partial aims, research questions, material, and research methods. The third chapter summarizes and presents the results of several primary and secondary researches focused on analyzing the application of strategic planning for the development of biosphere reserves in Slovakia and on the European continent. This chapter contains a discussion of the research results in comparison with theoretical principles and subsequently presents a proposed methodology for strategic planning for the development of biosphere reserves and recommendations for its implementation. The fourth chapter describes the theoretical and practical contributions of the dissertation. In preparing the thesis, we used scientific domestic and foreign bibliographic sources. We analyzed the data using selected mathematical and statistical methods (Chi-kvadrat test, Friedman test, Wilcoxon test, factor analysis, cluster analysis). The contributions of the dissertation is the development of theoretical foundations, the implementation of several analyses at home and abroad, and the identification of good examples of practice from abroad, on the basis of which we created a methodology for strategic planning for the development of biosphere reserves.

Keywords: Biosphere reserve. Strategic development planning. Sustainable territory development. Participatory territory management. Territory potential.

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BACKGROUND OF THE ISSUE

Current global challenges and ongoing changes highlight the need for the intelligent use of finite resources and the sustainable development of territories. Biosphere reserves represent environments where biodiversity must be conserved through sustainable development, as these areas serve as models of sustainable living and demonstrate a balanced and mutually beneficial relationship between humans and the natural environment. The need to protect and develop these reserves is further reinforced by the impacts of climate change and the implementation of the 2030 Agenda for Sustainable Development.

Insufficient attention has been devoted to examining governance approaches in biosphere reserves as distinctive territorial systems where the development interests of a wide range of stakeholders intersect, while simultaneously reflecting varying levels of environmental protection and constraints on land use. These areas, founded on the harmonious relationship between humans and nature, should be managed intelligently through strategic planning that integrates all of their components in accordance with the principles of sustainable development.

The sustainable development of biosphere reserves can be achieved through strategic planning based on participatory governance. This approach provides an opportunity to implement an innovative framework that can foster the sustainable development of these areas—a dimension that is currently lacking in many biosphere reserves. The present state of planning, understanding, and recognition of the biosphere reserve concept poses a significant challenge to the application of this approach, which numerous authors have identified as essential for effective biosphere reserve planning (e.g., Yazdandoost, 2019; Van Cuong, Dart, & Hockings, 2017; Job, Becken, & Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, & Torkayesh, 2022).

The development of biosphere reserves is important not only in terms of government support, stakeholder engagement, or biodiversity conservation. Rather, it must be people-centred and closely linked to policy formulation. As emphasized by Bridgewater (2002), biosphere reserves constitute a key instrument for both people and nature in advancing a genuinely sustainable development system.

The object of this dissertation research comprises biosphere reserves in Slovakia and across Europe. Slovakia is home to four biosphere reserves: the Poľana Biosphere Reserve, the Slovak Karst Biosphere Reserve, the East Carpathians Biosphere Reserve, and the Tatras Biosphere Reserve. The international scope of the study focuses on biosphere reserves located

on the European continent, excluding those that extend into Asia. In total, the research examines 205 biosphere reserves. Throughout this dissertation, these are collectively referred to as *biosphere reserves located on the European continent*. The subject of the research is the strategic planning of biosphere reserve development.

The main objective of this dissertation is, based on the theoretical conceptualization of biosphere reserves and contemporary approaches to their governance and development planning, to examine the current state of strategic development planning in biosphere reserves in Slovakia and across the European continent. Building on this analysis and on examples of good practice from abroad, the study aims to develop a methodological framework for the strategic development planning of biosphere reserves and to formulate recommendations for its implementation.

The added value of this dissertation, as well as the selected approach to investigating the research problem, lies in its contribution to addressing an identified research gap. Existing literature suggests that the strategic development planning of biosphere reserves is a relatively new and underexplored, yet innovative and essential, approach within the context of biosphere reserves. Such an approach should be based on the integrated planning and utilization of the area's economic, social, and environmental potential to achieve sustainable territorial development through participatory governance (Van Cuong, Dart, & Hockings, 2017; Yazdandoost, 2019; Gehrlein et al., 2019; Jungmeier et al., 2011; Mai, 2012; Vaňová, Vitálišová, Rojíková, & Škvareninová, 2023; Engelbauer, 2023; Job, Becken, & Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, & Torkayesh, 2022).

The findings of this dissertation build upon and complement the outcomes of the Slovak Research and Development Agency (APVV) project APVV-20-0108, *Implementation of the 2030 Agenda through Biosphere Reserves*. Furthermore, the research aligns with the scientific priorities of the Faculty of Economics at Matej Bel University in Banská Bystrica, particularly the priority area of *Innovative and Sustainable Development of Territorial Units*.

1. CURRENT STATE OF KNOWLEDGE IN SLOVAKIA AND ABROAD

The aim of the first chapter of this dissertation is to examine and define the theoretical foundations and the current state of knowledge on the research topic in Slovakia and abroad. The chapter is based on an analysis and comparison of scientific and scholarly literature published by both international and Slovak authors addressing the strategic planning of biosphere reserve development.

1.1. The Biosphere Reserve as an Object of Development

A biosphere reserve is a territory that integrates social and ecological systems, providing a framework for understanding, managing, and strengthening the interactions between these interconnected systems. The biosphere reserve concept is widely recognized as an approach aimed at reconciling nature conservation with sustainable development (Ishwaran, Persic, & Tri, 2008; Axelsson, Angelstam, Elbakidze, Stryamets, & Johansson, 2011), while taking into account the territory as a whole. Biosphere reserves are also regarded as model areas and examples of best practice, where the coexistence of people and nature is fostered in alignment with the objectives of the 2030 Agenda (UNESCO, 2022; Bridgewater, 2002; Van Cuong, Dart, & Hockings, 2017; Lepeska, 2012).

A biosphere reserve is an internationally recognized site nominated by a national government and designated by the Director-General of UNESCO, upon the decision of the International Coordinating Council of the Man and the Biosphere (MAB) Programme. Each biosphere reserve is part of the World Network of Biosphere Reserves (WNBR) under the MAB Programme, which serves as a unique international platform for cooperation, knowledge exchange, the sharing of best practices and expertise, and the effective promotion of biosphere reserves worldwide.

Within UNESCO's policy framework, a biosphere reserve is regarded as a unique socio-ecological unit of cultural and natural landscapes in which people and their activities play a fundamental role. Its purpose is not only to conserve the natural heritage of the area but also to preserve its cultural values, including local traditions, ways of life, and the social interactions and behaviours of the communities that inhabit the territory (UNESCO, 2022).

A biosphere reserve performs three core functions. The first, primarily associated with ecological systems, is the conservation of biodiversity, ecosystems, and landscapes. The second function focuses on the social and cultural dimensions of the territory by promoting the sustainable economic and socio-economic development of local communities. The third, equally important, function is to support science, research, and education, with an emphasis

on building partnerships at the local, regional, and international levels to foster knowledge generation and sustainable development within the reserve (State Nature Conservancy of the Slovak Republic, 2022).

According to UNESCO's most recent policy developments, the updated MAB Strategy for 2021–2025 also recognizes a fourth function of biosphere reserves: supporting climate change mitigation and adaptation, as well as addressing other aspects of global environmental change (Špulerová et al., 2023).

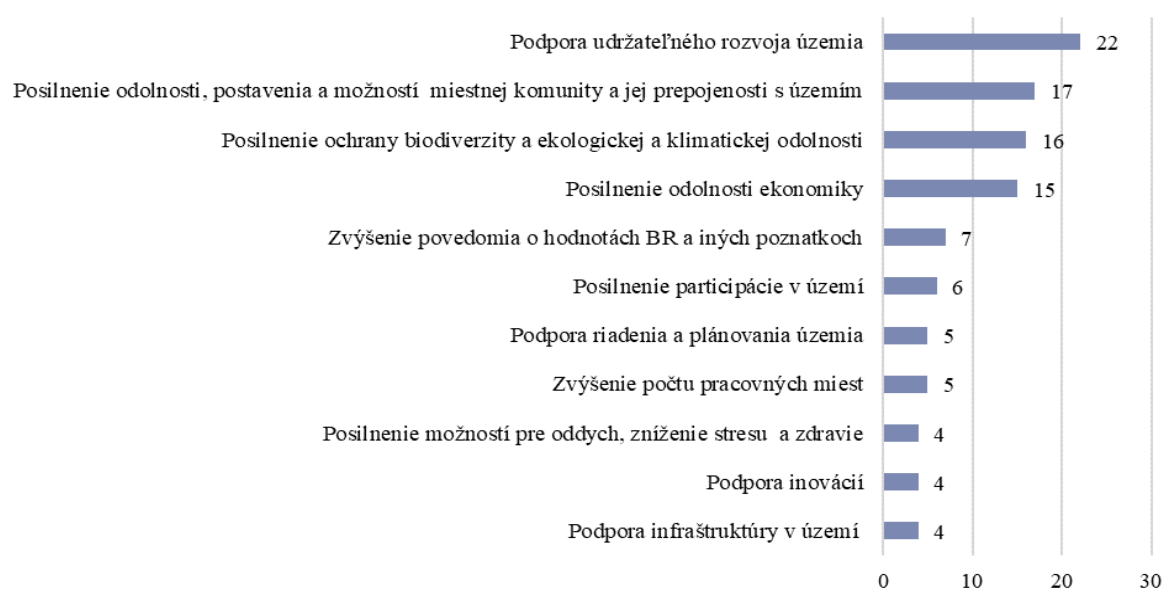
From the perspective of economic theory, the concept and benefits of biosphere reserves can be understood through the Theory of Total Economic Value (TEV) proposed by Randall and Stoll (1983), which provides a comprehensive analytical framework for the economic valuation of nature and landscapes. Drawing on the work of several authors (Rothgang, 1997; Meyerhoff, 1999; Turner, Paavola, Cooper, Farber, Jessamy, & Georgiou, 2003; WCPA, 1998; Pascual et al., 2010; Barbier, Acreman, & Knowler, 1997), Mayer and Job (2014) explain that total economic value consists of multiple components and that natural assets can generate several forms of economic value simultaneously.

Furthermore, they describe Total Economic Value (TEV) as a taxonomy of environmental values that can also be regarded as a holistic concept of value, encompassing the full value of all ecosystem services provided by natural capital, both now and in the future. According to Mayer and Job (2014), TEV includes all use and non-use components of ecosystem services expressed in monetary terms. The primary purpose of the TEV framework is to differentiate and classify the diverse values associated with natural resources.

Within the framework of economic theory, biosphere reserves can also be examined through the lens of the theory of public goods. However, their classification within this theoretical framework remains ambiguous (Merlo & Briales, 2000). Many authors categorize biosphere reserves, as protected areas, as collective goods (Uusitalo, 1989; Walls, 2022; Dixon & Sherman, 1991; Deke, 2008; Mangonnet, Kopas, & Urpelainen, 2022; Mansourian & Dudley, 2008; Kedward, zu Ermgassen, Ryan-Collins, & Wunder, 2022; Kangas, 2017; De Lucio & Seijo, 2021).

Link (2022) and Mayer and Job (2014) demonstrate that biosphere reserves are characterized by the coexistence of multiple stakeholder interests, involving the provision of private goods, collective goods, and non-market goods. This diversity of interests creates the conditions for seeking consensus in the planning and development of biosphere reserves (Vaňová, 2006).

An externality arises when the actions of one economic agent affect the welfare of another without being mediated through market prices (Varian, 1978; Merlo & Briales, 2000). The existence of a biosphere reserve generates a range of well-documented positive externalities. Most studies consistently identify benefits such as the promotion of sustainable territorial development, the strengthening of the resilience, capacity, and empowerment of local communities and their connection to the territory, the enhancement of biodiversity conservation and ecological and climate resilience, as well as increased economic resilience (see Figure 1). The authors of the studies summarized in Figure 1 are listed in Appendix 1.



Graph 1 Positive Externalities of Biosphere Reserves: Number of Studies Confirming Their Existence

Source: Authors' own elaboration

Additional positive externalities associated with biosphere reserves include the provision of food, water, timber, and other natural resources such as biochemical products; the promotion of traditional products linked to natural and cultural heritage; enhanced protection of sensitive species of flora and fauna; improvements in water, air, and soil purification; the regulation of natural hazards, water flows, soil erosion, and soil fertility; support for pollination; the regulation of pests and diseases; and the preservation of the aesthetic value of landscapes. Biosphere reserves also provide inspiration for artistic expression, valuable resources for education and research, opportunities for spiritual and religious experiences, and the preservation of cultural identity and heritage (Kettunen & ten Brink, 2013).

Biosphere reserves constitute goods with unique characteristics and significant positive externalities. Given their environmental sensitivity and vulnerability to congestion

and overuse, their sustainable utilization requires strategic governance and carefully designed development planning to ensure their long-term conservation and balanced development.

Development is understood as meeting the needs of present generations without compromising the ability of future generations to meet their own needs and without doing so at the expense of other nations (Maier, 2012). Territorial development is both an economic and a social process that seeks to transform a territory into a viable and productive area by effectively utilizing its development potential (Vaňová, 2006; Ibragimova, 2024; Rodríguez-Pose, Bartalucci, Lozano-Gracia, & Dávalos, 2024).

One of the principal objectives of territorial development is to initiate a long-term process of building territorial competitiveness through the effective utilization of spatial potential and the unique characteristics of a given area. At the same time, it is essential to recognize and understand the factors influencing territorial development, including market demand for the products and services of the territory and its stakeholders, competition from other territories, and the broader marketing environment. This environment encompasses the processes and relationships within both the internal and external marketing context, which collectively contribute to enhancing the territory's economic performance and overall well-being (Vaňová, 2006).

The development of a biosphere reserve is associated not only with economic growth but also with addressing the political and social needs of local communities, as well as fostering employment opportunities, equality, social justice, participation, and autonomy within the territory. Together, these dimensions contribute to improving the overall quality of life and safeguarding the human rights of local residents.

Vitálišová, Miňová, and Vaňová (2021) support this perspective and consider it particularly appropriate for application in the context of biosphere reserves. They argue that the development of biosphere reserves can never be based on intensive industrial expansion; instead, it should rely on the effective use of soft development factors in combination with the area's exceptional natural capital. Indeed, most biosphere reserves have been designated because of their rich biodiversity and their importance as sites for scientific research and environmental conservation (Brunckhorst, 1997; Ishwaran, Persic, & Tri, 2008; Price, Park, & Bouamrane, 2010).

Among the theories of regional development most closely associated with the development of biosphere reserves are the endogenous growth theory and the learning regions theory (Balážek & Uhlíř, 2021). This approach to biosphere reserve development is founded on the effective utilization of the endogenous potential of the territory. The concept of

economic growth driven by internal resources originates from endogenous growth theory, which Arestis, Baddeley, and McCombie (2007) define in two ways: first, as a theory in which the growth rate is determined by the equilibrium solution of the growth model itself rather than being imposed exogenously; and second, as a theory in which technological progress is explicitly modelled rather than treated as an exogenous factor. Romer (1990, 1994) further explains that growth in endogenous growth models is primarily driven by technological change.

From the perspective of endogenous growth theory, the key determinants of territorial development are endogenous factors, including human capital, transport and communication infrastructure, telecommunications infrastructure, institutional quality, and agglomeration effects (Ivaničková, as cited in Gerulová & Kováč, 2010). Human capital also encompasses the educational attainment and skill levels of the population. Several authors (Hontyová & Lisý, 1999; Svidroňová & Mikuš, 2014) support this view, arguing that endogenous growth models broaden the traditional concept of capital by recognizing human capital alongside physical capital as a fundamental driver of economic development.

Bharadwaj, Clark, and Kulviwat (2005) further argue that endogenous growth models allow for sustained growth through previously undiscovered resource and technological regimes, as well as expanded opportunities for innovation. They emphasize that continuous growth depends on creating an environment conducive to the generation of useful knowledge through policies that stimulate, optimize, and reward invention, discovery, and innovation, while simultaneously ensuring effective mechanisms for the diffusion of knowledge. Aghion, Howitt, Brant-Collett, and García-Peñalosa (1998) add that this approach influences not only economic growth itself but also a range of interrelated phenomena, including income inequality, unemployment, capital accumulation, education, competition, natural resource management, international trade, business cycles, and public policy.

In addition to endogenous growth theory, biosphere reserves can also be viewed through the lens of the learning regions theory, which identifies knowledge, learning capacity, and innovation as the principal drivers of territorial development. These processes are strongly influenced by the nature of relationships among territorial actors and by the institutional and social environment in which they operate. The theory also incorporates insights from sociology and cultural theory, both of which are highly relevant to the functioning of biosphere reserves. From this perspective, the availability of resources or information within a territory, or the extent to which stakeholders' resources can be mobilized, is less important than the

meaning attributed to those resources and the ways in which they are interpreted and reinterpreted (Balážek & Uhlíř, 2021).

By their very nature, biosphere reserves integrate social and ecological systems, creating environments that facilitate learning, enhance understanding, support the management of change, and strengthen interactions between these interconnected systems. In this sense, biosphere reserves can be understood as learning territories that promote adaptive governance and sustainable development (Lepeška, 2012; Schultz & Lundholm, 2013; Schultz et al., 2018).

Sustainable development is commonly defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Stoll-Kleemann & O'Riordan, 2017). With the same objective, the Sustainable Development Goals (SDGs) were adopted in 2015 as part of the 2030 Agenda for Sustainable Development. Although the 2030 Agenda builds upon the Millennium Development Goals (MDGs), it extends beyond them. While the MDGs primarily focused on reducing poverty and hunger in less developed countries, the SDGs apply universally to all countries and regions. The 17 goals of the 2030 Agenda encompass a broader range of social, economic, and environmental objectives that all nations are expected to achieve by the end of 2030 (Arora & Mishra, 2019; Díaz-Sarachaga, Jato-Espino, & Castro-Fresno, 2018).

Numerous authors, as well as UNESCO's strategic documents and programme frameworks, emphasize that one of the principal objectives of the UNESCO Man and the Biosphere (MAB) Programme is to support the implementation of the 2030 Agenda. Whereas the 2030 Agenda establishes the priorities and direction of global sustainable development, the MAB Programme, drawing on decades of experience in integrated sustainable development, provides practical guidance on how these goals can be implemented at the local and regional levels. Through the World Network of Biosphere Reserves, the programme connects learning sites and model regions that demonstrate and promote sustainable development in practice (Heinrup & Schultz, 2017; Rockström & Sukhdev, 2016; Stanvliet & Coetzer, 2020; Stoll-Kleemann & O'Riordan, 2017; UNESCO, 2015; UNESCO, 2017).

The existing body of research on biosphere reserves likewise highlights the necessity of ensuring their sustainable development (Batisse, 1997; Ishwaran, Persic, & Tri, 2008; Ishwaran, 2012; König et al., 2022; Reed & Price, 2020; Bridgewater, 2002; UNESCO, 1996; UNESCO, 2015). Such development should strengthen the recognition of biosphere reserves as exemplary territories for the conservation and sustainable use of natural resources (Ishwaran, Persic, & Tri, 2008; Brenner & Job, 2012; Coetzer, Witkowski, & Erasmus, 2013).

The sustainable development of biosphere reserves is closely linked to, and dependent upon, their effective management. Strategic planning constitutes one of the fundamental functions of management, reflecting the principles of management theory and underscoring its central role in the governance of biosphere reserves (Havidz & Suprpto, 2021). However, numerous studies emphasize that effective governance extends well beyond planning alone. The management and overall development of biosphere reserves should also encompass efficient organizational structures, monitoring and control mechanisms, adequate human resource capacity, effective leadership, and sustainable financing to ensure the long-term achievement of conservation and development objectives.

Territorial development cannot be achieved without effective governance, which largely depends on the competencies, skills, and education of those responsible for managing the territory. Inadequate professional training limits the ability of biosphere reserve managers to identify new opportunities, respond to emerging challenges, and promote the sustainable development of these areas. As a result, managers may struggle to adapt to current trends affecting biosphere reserves, leading to stagnation and reducing their capacity to develop attractive, well-promoted, and competitive territories that contribute not only to local development but also to the preservation of natural and cultural heritage for the benefit of society.

The literature consistently emphasizes the importance of strong leadership in biosphere reserves. Biosphere reserve managers play a critical role in initiating and supporting transformative changes that contribute to the achievement of the Sustainable Development Goals (SDGs). Their leadership is therefore essential for fostering adaptive governance, stakeholder collaboration, and the long-term sustainability of biosphere reserves (Olsson, Folke, & Berkes, 2004; Pullin & Knight, 2009; Stoll-Kleemann & O'Riordan, 2002; Twyman, 2000; Wilshusen, Brechin, Fortwangler, & West, 2002).

Numerous authors emphasize the need for comprehensive land management strategies and for coordinating the sustainable use of land through agricultural support and payment schemes (Prager, 2015; Westerink, Pérez-Soba, & van Doorn, 2020; Nesheim et al., 2014). Furthermore, land should be managed according to the principles of multifunctionality, recognizing its capacity to simultaneously provide ecological, economic, and social benefits (Mander, Helming, & Wiggering, 2007; O'Farrell & Anderson, 2010).

Financial planning based on sustainable financing mechanisms and diversified funding sources is a fundamental prerequisite for the successful implementation of the biosphere reserve concept. Limited financial resources constitute a major barrier to the implementation

of innovative solutions, the exchange of knowledge, the promotion of public awareness, the effective implementation of biosphere reserve initiatives, and the comprehensive assessment of potential sites that have not yet met the requirements of the biosphere reserve concept (Price, 1996; Coetzer, Witkowski, & Erasmus, 2013; Van Cuong, Dart, & Hockings, 2017; Matysek, Stratford, & Kriwoken, 2006; Price, Park, & Bouamrane, 2010).

Dixon and Sherman (1991) further emphasize the importance of public investment in protected areas. They argue that the societal benefits generated by protected areas are frequently underestimated, while the immediate costs of conservation appear disproportionately high. Consequently, government investment is often necessary to ensure their effective protection and long-term management. In this context, the economics of biosphere reserves plays a crucial role in demonstrating why these benefits are undervalued and in improving methods for their economic assessment. Such evidence can, in turn, provide a stronger justification for expanding publicly supported protected areas and increasing financial allocations for their management.

Similarly, Link (2022) argues that, contrary to conventional assumptions, well-targeted public investment in nature can represent a sound macroeconomic strategy for safeguarding public goods that are essential for economic productivity and societal resilience. From a microeconomic perspective, however, the challenge lies not only in creating new markets for environmental public goods but also in ensuring that nature-based markets are sufficiently structured to become economically investable.

Monitoring and control mechanisms should assess the quality of biosphere reserve management in relation to its core functions, evaluate opportunities for education and capacity building at both the national and international levels, and demonstrate the effectiveness of specific management approaches in achieving both nature conservation and sustainable development objectives (Price, Park, & Bouamrane, 2010; Coetzer, Witkowski, & Erasmus, 2013; Price, 2002; Reed & Massie, 2013).

Van Cuong, Dart, and Hockings (2017) further argue that the current ten-year interval between the periodic reviews of biosphere reserves limits opportunities for active learning, adaptive management, and the timely adjustment of governance measures (Price, Park, & Bouamrane, 2010; Reed & Eguny, 2013). Consequently, continuous monitoring and evaluation within a strategic management framework can help overcome these limitations by supporting more responsive and adaptive decision-making.

Another essential requirement is the strategic planning of education and awareness-raising both about biosphere reserves and within biosphere reserves themselves. Such

initiatives should actively involve local residents, stakeholders, biosphere reserve staff, and the wider public through educational programmes, community activities, events, and exhibitions. These initiatives not only enhance public understanding of the biosphere reserve concept but also promote the biosphere reserve brand and contribute to strengthening the regional identity of the territory (Moreira-Muñoz, Carvajal, Elórtégui, & Rozzi, 2019; Pokorny, 2006; Kasperczyk, Gehrlein, & Neef, 2009; Nelson, 1987).

Government support and the active engagement of stakeholders, both within and beyond the boundaries of the biosphere reserve, are essential prerequisites for the successful development of these territories. In recent decades, stakeholder participation has become an increasingly prominent theme in research, public policy, and the practice of natural resource management and biodiversity conservation. Participatory governance strengthens the interconnections between ecological and social systems by fostering collaboration among diverse stakeholders, thereby increasing the effectiveness of territorial management, decision-making, and evaluation processes (Schultz, Duit, & Folke, 2011; Nikolakis, 2020; Folke & Berkes, 1998; Holling, 2001; Chapin, Kofinas, & Folke, 2009; Dearden, Bennett, & Johnston, 2005; Slocum-Bradley, 2003; Reed, 2008; Folke, Hahn, Olsson, & Norberg, 2005; Walker, 2002; Folke, Colding, & Berkes, 2003).

In addition to the theoretical perspectives discussed above, biosphere reserves can also be understood through the lens of public participation theory. Quick and Bryson (2016) define public participation as the direct or indirect involvement of stakeholders in decision-making processes concerning policies, plans, or programmes that affect their interests. Freeman (1994, as cited in Pirozzi, 2019) conceptualizes stakeholders as participants in the human process of co-creating value. Building on the work of Freeman (2010) and Bryson (2004), Quick and Bryson (2016) further define stakeholders as individuals, groups, or organizations that can influence, are influenced by, or claim an interest in the decisions, resources, or outputs of organizations and public institutions.

Through public participation, stakeholders are able to engage with governmental bodies, policymakers, non-governmental organizations, and private-sector organizations involved in the formulation and implementation of public policies and programmes. Such participatory processes are particularly relevant in the governance of biosphere reserves, where the reconciliation of conservation and development objectives requires broad stakeholder collaboration and inclusive decision-making.

While participation may refer to individual actions or a set of procedures, participatory governance more broadly represents an ongoing process of engagement in decision-making

and management. Numerous authors emphasize the importance of involving local communities, stakeholders, and civil society in the governance of biosphere reserves and advocate for inclusive and participatory approaches. Wali, Alvira, Tallman, Ravikumar, and Macedo (2017) argue that the global conservation community increasingly recognizes the active participation of local communities as a prerequisite for the success of biodiversity conservation initiatives.

Similarly, Berkes (2004) highlights the crucial role of local communities and civil society in conservation efforts, advocating collaborative and community-based approaches. He argues that community-based conservation is founded on the principle that if nature conservation and socio-economic development can be pursued simultaneously, the interests of both can be effectively served. Fritz-Vietta, Röttger, and Stoll-Kleemann (2009) likewise emphasize the importance of strengthening local governance capacities and collaborative networks. Their findings underline the need to utilize local knowledge and to harmonize formal and informal institutional arrangements in order to facilitate the active and responsible participation of community members in the sustainable management of natural resources.

The UNESCO Man and the Biosphere (MAB) Programme also places strong emphasis on the involvement of local communities, Indigenous peoples, civil society, and other stakeholders in both the designation and governance of biosphere reserves. UNESCO's policy documents and guidelines consistently highlight the vital role of civil society in achieving the objectives of biosphere reserves and promoting sustainable development (UNESCO, 2022).

Stakeholder participation in the governance of protected areas and ecosystems has been shown to generate numerous positive outcomes for sustainable development. These include strengthening social capital, increasing the effectiveness of decision-making and the implementation of jointly agreed actions, improving the quality and accuracy of decisions through the integration of diverse knowledge systems, reinforcing collaborative governance, and enhancing stakeholders' sense of responsibility for the management and conservation of the territory (Mugisha & Jacobson, 2004; Berkes, 2009; Bouamrane et al., 2016; Guillaume & Charrouf, 2016; Dressler et al., 2010; Stringer et al., 2006; Sudtongkong & Webb, 2008; Ruiz-Mallén et al., 2015; Lebel et al., 2006; Hahn, Olsson, Folke, & Johansson, 2006; Ansell & Gash, 2008; Pretty & Ward, 2001; Beierle & Konisky, 2001; Berghöfer & Berghöfer, 2006; Colfer, 2010; Stoll-Kleemann & O'Riordan, 2002).

Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, and Torkayesh (2022) argue that the principal strength of participatory governance lies in its cross-sectoral nature and its capacity to address complex challenges involving multiple actors with diverse and often

competing interests. They further emphasize that identifying and implementing new development pathways requires a structured process of strategic planning. Similarly, Schultz, Duit, and Folke (2011) found that the successful achievement of sustainable development objectives is closely associated with the active participation of local communities. Their research demonstrates that adaptive co-management approaches are linked to higher levels of effectiveness in achieving development goals, fostering dialogue and collaboration, while simultaneously maintaining biodiversity conservation. This perspective is further supported by Olsson, Folke, and Berkes (2004) and by Plummer and FitzGibbon (2007).

Despite the widely recognized benefits of stakeholder participation, many authors also point to its potential drawbacks in the governance of protected areas. These include conflicts arising from divergent stakeholder interests, particularly the tension between biodiversity conservation and economic development objectives; information asymmetries among participants; a weakening of conservation management despite scientific evidence supporting its necessity; challenges related to land use and resource management; fragmented stakeholder representation resulting from the participation of only selected actors; and the limited ability of participatory processes to enhance the legitimacy of decisions (Brody, 2003; Galaz, 2005; Conley & Moote, 2003; Brandon, Redford, & Sanderson, 1998; Kramer, Van Schaik, & Johnson, 1997; Oates, 1999; Terborgh, 1999, as cited in Wilshusen, Brechin, Fortwangler, & West, 2002; Du Toit, Walker, & Campbell, 2004; Berghöfer & Berghöfer, 2006; Jentoft, 2000; Platteau & Abraham, 2002; Stoll-Kleemann, De la Vega-Leinert, & Schultz, 2010; Giordano, Tuci, & Curiarzi, 2013; Bridgewater, 2016; Taggart-Hodge & Schoon, 2016).

Nevertheless, empirical evidence indicates that insufficient stakeholder participation may itself generate conflicts between local communities and governing authorities. Such conflicts can be mitigated by actively involving local residents in the planning, implementation, and evaluation of management strategies (Rao, Nautiyal, Maikhuri, & Saxena, 2003; Wissen, Schroth, Lange, & Schmid, 2008; Speelman, García-Barrios, De Groot, & Tuttonell, 2014). This finding is particularly relevant in the context of biosphere reserves and represents one of the key theoretical assumptions underpinning the present research.

Stakeholder participation and collaboration are fundamental principles of good governance within both formal and informal institutional arrangements. Effective collaboration strengthens coordination, facilitates dialogue, and promotes inclusive participation in the planning and management of biosphere reserves. However, governance structures established solely by local communities or non-governmental organizations may

face limitations due to their lack of formal authority and decision-making capacity (Brunckhorst, 2001; Van Cuong, Dart, & Hockings, 2017).

Belcher et al. (2016, as cited in Walk, Luthardt, & Nölting, 2019) further argue that biosphere reserves should embrace participatory processes that foster collaboration among municipalities, local stakeholders, and universities. Owing to their scientific expertise and institutional credibility, universities can serve as catalysts by initiating, facilitating, and critically reflecting on these collaborative processes. In doing so, they provide an important platform not only for scientific research but also for stakeholder engagement and sustainability learning, thereby strengthening the adaptive governance and long-term sustainable development of biosphere reserves (Walk, Luthardt, & Nölting, 2019).

Other studies suggest that stakeholder participation enhances public acceptance and support, thereby contributing to more effective biosphere reserve management (Stoll-Kleemann & Welp, 2008; Stoll-Kleemann, De la Vega-Leinert, & Schultz, 2010; Albert, Zimmermann, Knieling, & von Haaren, 2012). However, the successful implementation of the biosphere reserve concept also depends on strong government commitment, active involvement, and a clear understanding of the role of stakeholder participation at the local level (Van Cuong, Dart, & Hockings, 2017). In practice, planned outcomes are achieved only through continuous dialogue, negotiation, and collaboration among stakeholders and institutions (Bouamrane, 2007).

A growing body of literature highlights the importance of government involvement in the planning and governance of biosphere reserves, particularly in relation to collaborative governance arrangements that require the active participation of both public authorities and local communities (Carlsson & Berkes, 2005; Cash & Moser, 2000; Berkes, 2007). At the same time, Brody (2003) argues that certain forms of government involvement may negatively affect the quality of management plans, particularly with regard to their capacity to protect ecosystems effectively. Several authors further contend that top-down approaches to biodiversity conservation can hinder the governance of biosphere reserves, whereas people-centred and participatory governance models are more likely to achieve successful conservation outcomes than strictly centralized, government-led approaches (Stoll-Kleemann & Welp, 2008; Schultz & Lundholm, 2013; Schultz, Duit, & Folke, 2011; Wilshusen, Brechin, Fortwangler, & West, 2002).

Despite the differing views on the role of government involvement, there is broad consensus in the literature that sustained government support remains essential for the long-

term sustainable development of biosphere reserves (Van Cuong, Dart, Dudley, & Hockings, 2018; Engelbauer, 2023; Wager, 1995).

The literature also highlights the important role of scientists and volunteers in the development, governance, and planning of biosphere reserves. In a study involving 146 biosphere reserves across 55 countries, Schultz, Duit, and Folke (2011) found that the effectiveness of biodiversity conservation and protected area management was positively associated with the participation of scientists, whereas volunteer participation was negatively associated with conservation effectiveness. Similar conclusions were reported by Schultz, Folke, and Olsson (2007).

The authors argue that scientists contribute to the success of biosphere reserves through research partnerships that generate new knowledge and scientific evidence to support planning, decision-making, and policy development (Sabatier & Jenkins-Smith, 1993; Van Cuong, Dart, & Hockings, 2017).

A substantial body of literature advocates for the adoption of adaptive collaborative governance in biosphere reserves, whereby the conservation and sustainable use of ecosystems are jointly managed by a broad range of stakeholders. Effective collaboration should be supported by the continuous exchange of information, fostering mutual understanding and, ultimately, agreement around a shared vision for the future of the territory. Collaborative governance should be learning-oriented, drawing upon multiple sources of knowledge to address complex management challenges. It should also incorporate ongoing monitoring, the interpretation of feedback, adaptive responses to changing conditions, and the integration of scientific evidence into decision-making processes (Plummer & Armitage, 2007; Folke, Colding, & Berkes, 2003; Reid, Berkes, Wilbanks, & Capistrano, 2006; Plummer & FitzGibbon, 2007; Olsson, 2007).

Van Cuong, Dart, and Hockings (2017) further argue that stakeholder participation and collaboration, governance, financial resources, institutional capacity, management, awareness, and communication are among the most influential determinants of the success or failure of biosphere reserves. According to the authors, achieving long-term success requires the establishment of a planning and management system characterised by inclusive and meaningful stakeholder participation, strong collaborative partnerships, adequate financial and human resource allocation, and stable, accountable governance capable of ensuring the effective implementation of management objectives.

1.2. Strategic Development Planning of Biosphere Reserves

Development planning is an integral component of every biosphere reserve worldwide. However, experience has shown that planning processes are often neither sufficiently strategic nor adequately oriented towards long-term sustainability. The development of a biosphere reserve should therefore be based on systematically planned activities that emerge from a structured strategic planning process. The purpose of this process is to define a desired future state and identify the decisions and actions that must be undertaken in the present to achieve that vision.

Strategic planning focuses on the relationship between present decisions and their future consequences. It examines the causal links between current choices and their long-term outcomes, enabling managers to anticipate the implications of alternative courses of action. If ongoing developments indicate that existing plans are unlikely to achieve the intended objectives, strategic planning provides the flexibility to revise decisions and adopt more appropriate approaches. Unlike conventional planning, strategic planning explicitly considers multiple future alternatives, allowing decision-makers to evaluate different development pathways before selecting those that will guide current actions and support the long-term sustainable development of the biosphere reserve.

The importance of strategic planning has increased significantly in recent years in response to rapid societal and environmental change, growing uncertainty, intensifying competitive pressures, and an increasing emphasis on sustainability and the efficient management of resources. Consequently, strategic planning has become widely applied across the private, public, and third sectors (George, 2025; Vandersmissen & George, 2024; Bello-Gómez & Avellaneda, 2023).

At its core, strategic planning is a systematic process of identifying future opportunities and threats. When combined with relevant internal and external information, this process provides a sound basis for making better decisions in the present, enabling organisations to capitalize on emerging opportunities while mitigating potential risks. Steiner (1979) defines strategic planning as a comprehensive process of interconnected activities that integrates strategic thinking with budgeting and operational planning, while establishing mechanisms for monitoring and evaluating progress toward strategic objectives.

Drawing on the work of Kita (2002) and Vaňová (2006), Vitálišová (2017) describes strategic planning as a process of creating and maintaining a strategic balance between the objectives and capacities of a territory and the changing opportunities of the market and the

broader needs of society. Similarly, Černaj (2022) characterizes strategic planning as a process that encompasses the analysis of market conditions, customer needs and expectations, the identification of strengths and weaknesses, the assessment of the social, political, and legislative environment, and the evaluation of available resources that may represent either opportunities or threats to an organisation. Souček (1998, as cited in Malega, 2011) likewise defines strategic planning as the process through which an organisation formulates its long-term strategic objectives, forming the foundation of strategic management.

Papula and Papulová (2012, as cited in Černaj, 2022) emphasize that strategic planning differs from long-term planning in its primary focus on the external environment of an organization. Rather than simply extending the planning horizon, strategic planning prepares organizations to remain competitive and successful over the long term by anticipating and responding to changes in their external environment. Vitálišová (2017) further argues that strategic planning enhances the ability to anticipate future developments, respond rapidly to environmental changes, and adapt proactively to emerging trends.

From the perspective of territorial development, strategic planning represents a systematic and integrated approach that creates opportunities to improve the effectiveness of development interventions while strengthening the interconnections among key actors and sectors. By fostering synergy and enhancing coordination within a territory, strategic planning contributes to more effective governance through the active participation of stakeholders in the formulation and implementation of local public development policies.

The strategic planning process generally comprises several fundamental stages, including the formulation of a vision and strategic objectives, followed by an analysis of the internal and external environment, the market, and the competitive context. These stages provide the foundation for the development of a strategic plan, its implementation, and subsequent monitoring and evaluation (Kotler, 2007).

Petrík (2005) proposes a more comprehensive planning framework consisting of several interconnected steps: evaluating organisational performance against established objectives; identifying performance gaps; assessing these gaps in relation to external environmental conditions and internal organisational capabilities; redefining future objectives in light of identified deviations; developing broad action plans to achieve strategic goals; identifying the resources required across functional areas; aggregating these resource requirements at the level of strategic business units; allocating and reallocating resources among functional areas; distributing resources within individual functions; and continuously monitoring both resource utilisation and implementation progress. Petřík groups these

activities into four phases of the planning process: the preparatory phase, the goal-setting phase, the evaluation phase, and the development of the final strategic plan.

Černaj (2022) presents a simplified four-step planning process consisting of: (1) defining the organisation's mission, (2) establishing its long-term objectives, (3) formulating an appropriate strategy, and (4) developing a portfolio plan. According to this approach, a strategic plan should include a primary objective, strategic priorities, tactical measures, and a budget.

In Figure 1, we present an adapted and extended model of the strategic planning process based on the framework proposed by Grünig and Kühn (2002, 2015), which we consider the most appropriate conceptual basis for the present research.

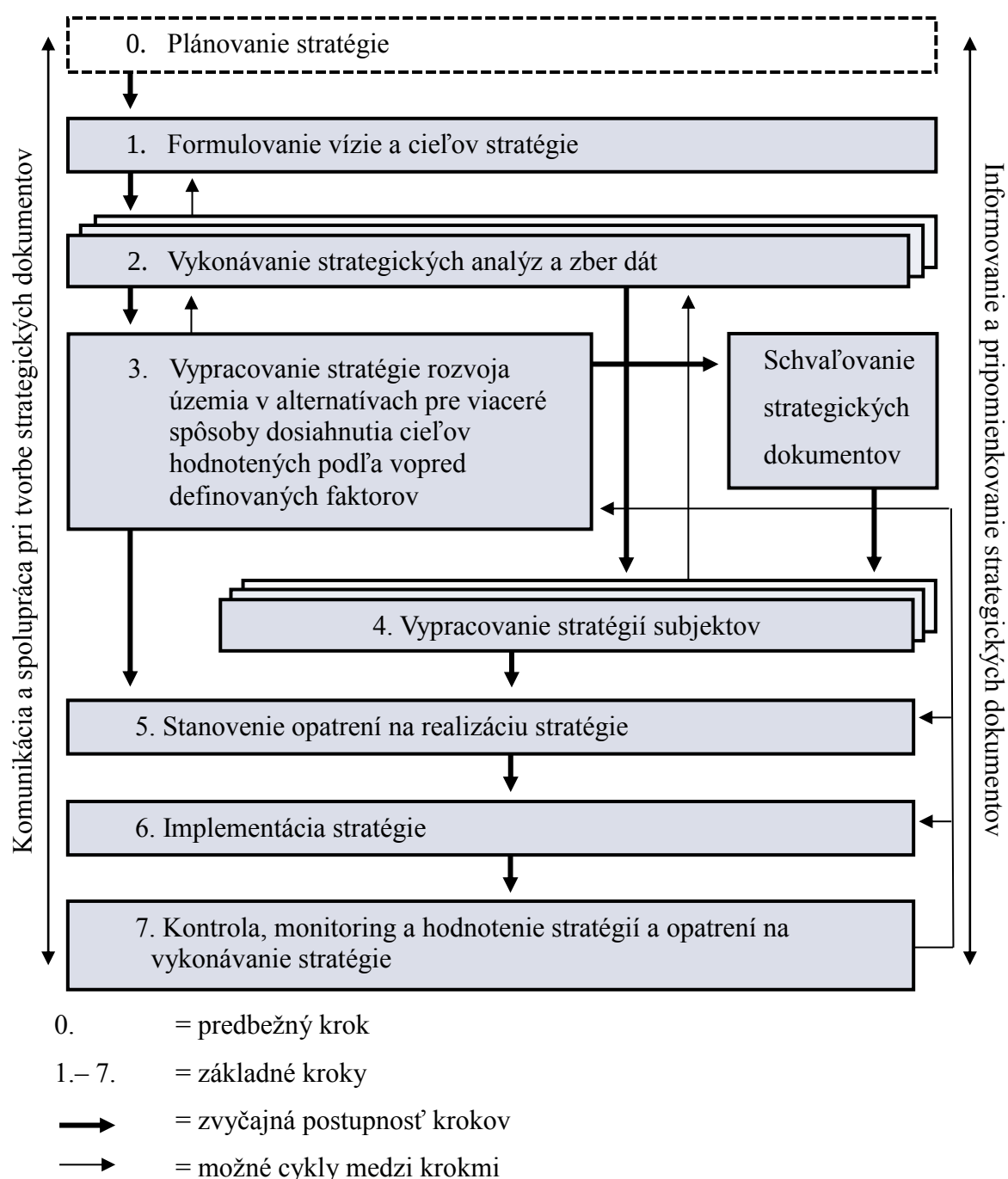


Figure 1 The Strategic Planning Process

Source: Adapted and extended from Grünig and Kühn (2002, 2015)

Numerous studies have highlighted the importance of planning for the development of biosphere reserves, although they differ in the extent and emphasis of their recommendations (Table 1). The first group of authors generally emphasizes the need for development planning in biosphere reserves. The second group specifically highlights the importance of their strategic development. The third group integrates these perspectives, advocating a strategic approach to biosphere reserve planning. This latter perspective also underpins the present research, as we argue that strategic planning provides the most appropriate framework for achieving the long-term sustainable development and effective governance of biosphere reserves.

Table 1 Needs Related to the Strategic Planning of Biosphere Reserves and the Articles and Studies Supporting Their Importance

Potreby spojené so strategickým plánovaním biosférických rezervácií	Články a štúdie
Potreba plánovania rozvoja biosférických rezervácií	Ortega-Alul, Vergara-Fernandez, Argandoña-Castro, Gallardo-Alvarez, 2023; Kuhn, 2000; Vizzarri, Tavone, Di Marzio, Giancola, Lasserre, Marino, Minotti, Mura, Ottaviano, Marchetti, Di Martino, 2015; Rao, Nautiyal, Maikhuri, Saxena, 2003
Potreba strategického rozvoja biosférických rezervácií	Kuhn, 2000; UNESCO, 2017; Martín-López, García-Llorente, Palomo, Montes, 2011; Vitálišová, Miňová, Vaňová, 2021; Vitálišová, Vavrušová, Piscová, 2023
Potreba strategického prístupu pri plánovaní biosférických rezervácií	Yazdandoost, 2019; Van Cuong, Dart, Hockings, 2017; Gehrlein, Mengel, Milz, Barthelmes, Düsterhaus, Mathias, Liesen, Baranek, 2019; Jungmeier, Paul-Horn, Zollner, Borsdorf, Grasenick, Lange, Reutz-Hornsteiner, 2011; Mai, 2012; Vaňová, Vitálišová, Rojíková, Škvareninová, 2023; Engelbauer, 2023

Source: Author's own elaboration

The strategic planning of biosphere reserve development should be closely integrated with spatial and landscape planning, particularly with regard to the functional use of land. Grossmann (2006) argues that positive outcomes for quality of life, economic development, and environmental quality depend on balancing economic, social, and political considerations. Similarly, a growing body of literature emphasizes that the planning of biosphere reserves should be firmly grounded in the principles of sustainable development, ensuring that

economic, social, and environmental objectives are addressed in an integrated and balanced manner (Wheeler, 2009; Brandon, Gorenflo, Rodrigues, & Waller, 2005; Kearney, Berkes, Charles, Pinkerton, & Wiber, 2007; Eizenberg & Jabareen, 2017; Schädler, Morio, Bartke, Rohr-Zaenker, & Finkel, 2011; Lyon, Hunter-Jones, & Warnaby, 2017; Hák, Janoušková, & Moldan, 2016; Wager, 1995; Weaver, 2005; Riensche, Castillo, Flores-Díaz, & Maass, 2015; Deveci, Pamucar, Gokasar, Isik, & Coffman, 2022; Donald, 2008; Reyer et al., 2012; Wiber, Berkes, Charles, & Kearney, 2004; Orenstein & Shach-Pinsley, 2017).

A growing body of literature specifically emphasizes the need for the strategic planning and management of the socio-economic development of biosphere reserves (Castillo-Eguskiza, Schmitz, Onaindia, & Rescia, 2019; Moreira-Muñoz, Carvajal, Elórtegui, & Rozzi, 2019; Thao, Eales, Lam, Hien, & Garside, 2023; Masny & Zauskova, 2014; Pelenc, 2014; Kuhn, 2000; Vizzarri et al., 2015; Van Cuong, Dart, Dudley, & Hockings, 2018; Van Cuong & Brown, 2013; Badenkov, Schaaf, & Yashina, 2023; Van Cuong, Dart, & Hockings, 2017; König et al., 2022).

Raszka and Heldak (2023) argue, however, that the socio-economic potential of biosphere reserves is still insufficiently reflected in strategically planned development as expressed in formal planning documents, including development strategies, spatial planning documents, and territorial development plans. Similarly, other authors point out that planning practices within biosphere reserves continue to be predominantly oriented towards nature conservation, often at the expense of broader socio-economic development objectives (Brandon & Wells, 1992; Brown, 2002).

The importance of these planning dimensions, together with their persistent absence in practice, creates an opportunity for more innovative approaches to the sustainable development of biosphere reserves while directly addressing the growing need for strategic planning in these areas (Job, Becken, & Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, & Torkayesh, 2022). Although strategic planning has been shown to improve the ability of public sector organizations to achieve desired outcomes, it has not yet become a sufficiently established or widely adopted practice (Bryson, Hamilton, Edwards, & Van Slyke, 2018; Bryson, Edwards, & Van Slyke, 2022).

Strategic planning should therefore be regarded as an essential and indispensable instrument for the long-term development of biosphere reserves. Its effectiveness could be further enhanced by aligning development objectives with the priorities of different stakeholder groups, introducing a comprehensive system of strategic management, and integrating human resource planning into the overall strategic planning process (Dye &

Sibony, 2007). Based on the reviewed literature, we conclude that strategic planning constitutes a fundamental and irreplaceable tool for the sustainable development and effective governance of biosphere reserves.

Strategic planning can be further strengthened by incorporating, or even being implemented as, a process of strategic marketing planning for territorial development. One of the principal reasons for adopting this approach is the need to enhance the competitiveness of territories in an increasingly dynamic and competitive environment (Nemyrovska & Levseitseva, 2024). Vaňová (2007) argues that globalization, increasing labour and capital mobility, growing individualism, product substitution, and market saturation have intensified competition among territories, compelling them to strengthen their position within the territorial marketplace. To ensure long-term prosperity, territorial managers seek to increase the attractiveness of their territories in order to attract human, financial, and material capital. In this competitive context, those territories that effectively coordinate their material, human, and financial resources, while building consensus around development strategies through their alignment with the interests and activities of key local stakeholders, are more likely to succeed.

According to Vaňová (2006), a fundamental prerequisite for territorial competitiveness and sustainable development is a thorough understanding of competing territories and the systematic development of a sustainable competitive advantage through strategic marketing planning. She defines strategic marketing planning as a process of identifying and maintaining alignment between the objectives of a territory, market opportunities, and the resources available to support its development, with a clear emphasis on achieving long-term strategic goals. Furthermore, Vaňová (2020) emphasizes that the quality of territorial governance depends not only on the actors involved but also on the effectiveness of the institutional and organizational arrangements through which the distinctive characteristics and resources of the territory are mobilized and managed.

Within the strategic planning of biosphere reserves, we consider the marketing environment and the quality of territorial governance to be among the most critical, yet also the most underdeveloped, dimensions. A well-designed strategic marketing planning process could make a significant contribution to the sustainable development of these territories. In particular, it could improve public awareness among both residents and visitors, broaden and diversify the promotion of the biosphere reserve, enhance its visibility and attractiveness, and increase sustainable tourism demand. Through greater economic activity and the exchange of financial resources for locally provided goods and services, strategic marketing planning

could also support the development of technical and transport infrastructure, improve transport accessibility, stimulate the creation of new employment opportunities, and contribute to the overall well-being of the territory. Importantly, these outcomes should be pursued in a manner that remains fully consistent with the principles of sustainable development and the conservation objectives of biosphere reserves.

A number of authors also emphasize the importance of strategic marketing planning as a means of strengthening the sustainable development of biosphere reserves. This includes fostering local food consumption networks, promoting traditional agricultural practices through regional branding schemes, and developing a distinctive biosphere reserve brand. The biosphere reserve model encourages the use of territorial branding as a tool for achieving sustainable economic development while simultaneously respecting environmental conservation objectives (Van Cuong, Dart, & Hockings, 2017; Knaus, Bonnelame, & Siegrist, 2017; Vaňová, 2006, 2007, 2020; Swagemakers, Schermer, García, Milone, & Ventura, 2021).

The literature likewise highlights the importance of a strategic communication plan that ensures transparent knowledge exchange and information sharing among stakeholders, supports effective communication, and enhances public awareness and the visibility of the biosphere reserve through innovative communication channels. These include the use of social media and digital platforms, such as BR Smart, to strengthen stakeholder engagement, promote the biosphere reserve concept, and reinforce its territorial brand (Coetzer, Witkowski, & Erasmus, 2013; Van Cuong, Dart, & Hockings, 2017; Heinelt, 2018; UNESCO, 2010; Schliep & Stoll-Kleemann, 2010).

In the context of territorial development, strategic planning is grounded in spatial and land-use planning, aiming to coordinate activities within the territory while respecting the interests of existing stakeholder groups and reconciling their often diverse objectives. Rather than focusing solely on the physical organization of space, strategic planning seeks to integrate social, economic, and environmental priorities into a coherent long-term development framework.

Vaňová, Vitálišová, and Borseková (2017, p. 20) likewise argue that it is *desirable to adopt a demand-oriented (marketing) approach, which complements the traditional planning approach by identifying the needs of target groups, creating conditions for the effective use of the territory, and guiding territorial functions and activities according to collectively defined objectives.* This perspective reinforces the view that strategic marketing planning should complement conventional territorial planning by placing greater emphasis on stakeholder

needs, collaborative decision-making, and the long-term competitiveness and sustainability of the territory.

1.2.1. Participatory Approach to the Strategic Planning of Biosphere Reserves

The development and strategic planning of biosphere reserves should be founded on participatory governance through active stakeholder engagement and the establishment of collaborative partnerships, which are widely recognized as essential for the effective management and sustainable development of biosphere reserves (Sagie & Orenstein, 2022; Bouamrane et al., 2016; Stoll-Kleemann, De la Vega-Leinert, & Schultz, 2010; Monge-Ganuzas, Gurrutxaga, Muguruza, & Telleria, 2023; Walk, Luthardt, & Nölting, 2019; Wali, Alvira, Tallman, Ravikumar, & Macedo, 2017; Engelbauer, 2023; Barraclough, Schultz, & Måren, 2021; Bouamrane, 2007; Boesch, Renner, & Siegrist, 2008; Fritsch & Newig, 2012; De Groot, Alkemade, Braat, Hein, & Willemen, 2010; Folke, 2006; Fritz-Vietta, Röttger, & Stoll-Kleemann, 2009; Nölting & Mann, 2018; Sabatier & Jenkins-Smith, 1993; Kratzer & Ammering, 2019; Jungmeier et al., 2011; Berkes, 2004; Huber & Arnberger, 2021; Rao, Nautiyal, Maikhuri, & Saxena, 2003; Gunes, 2012; Schultz, Duit, & Folke, 2011; Schliep & Stoll-Kleemann, 2010; UNESCO, 2022; Lyon, Hunter-Jones, & Warnaby, 2017).

This participatory approach reflects the recognition that people are an integral part of biosphere reserves and play a central role in their governance and decision-making processes. As the existence and management of biosphere reserves affect local communities in multiple social, economic, cultural, and environmental dimensions, their active involvement in planning and governance is essential for achieving both effective management and long-term sustainable development (Holmes, 2014; Reed & Price, 2020; Mondino & Beery, 2019).

Van Cuong, Dart, and Hockings (2017), based on an extensive study of 90 biosphere reserves across 42 countries, argue that the successful implementation of the biosphere reserve concept and the achievement of its objectives require a strategic plan developed through a participatory process involving relevant stakeholders. Engaging diverse stakeholder groups in strategic planning to build consensus around the objectives of the biosphere reserve is considered essential, as aligning stakeholder interests and fostering their willingness to participate creates the conditions necessary for sustainable development (Pulsford, Fitzsimons, & Wescott, 2013; Kearney, Berkes, Charles, Pinkerton, & Wiber, 2007; Smulders-Dane, Smits, Fielding, Chang, & Kuipers, 2016).

Sustainable development that delivers tangible economic benefits to local communities and other stakeholders is, in turn, regarded as a key mechanism for motivating

their active participation in the governance and strategic planning of biosphere reserves (Stoll-Kleemann, 2005; Schultz, Duit, & Folke, 2011). Optimising stakeholder engagement in this way can also contribute to more sustainable community governance (Zhang et al., 2023). Stoll-Kleemann et al. (2010, as cited in Walk, Luthardt, & Nölting, 2019) support this view, arguing that participatory governance and shared decision-making are fundamental to the effective functioning of biosphere reserves because local communities and producers are among the principal actors responsible for their management. By promoting the collection and integration of knowledge, expertise, and practical experience from diverse stakeholder groups, participatory and collaborative planning processes can help address local challenges while fostering the long-term development of biosphere reserves. Consequently, strategic planning is essential not only for conserving biodiversity and guiding the sustainable development of the territory itself, but also for improving the well-being and resilience of the communities that live within it.

The implementation of participatory governance in the strategic planning of biosphere reserves relies on a wide range of participatory tools and methods designed to facilitate stakeholder engagement throughout the planning and decision-making process. Based on the literature, these tools include public meetings, public discussions and hearings, questionnaire surveys, stakeholder polls, stakeholder participation in working groups, discussion forums involving representatives of different stakeholder groups, communication with stakeholders via postal mail, e-mail, newsletters, and magazines, open data portals, open data visualisation applications, information-sharing databases within local authorities, biosphere reserve websites, online communication through social media platforms, participatory budgeting (both online and offline), hackathons and innovation competitions for stakeholders, educational activities targeting both stakeholders and biosphere reserve staff, and the organisation of public events (Vitálišová et al., 2025; Vitálišová, 2015; Vitálišová et al., 2022).

In the context of biosphere reserves, strategic planning should respond to the contemporary challenges and operational issues affecting their management and long-term development. Drawing on both theoretical foundations and empirical research, Vitálišová, Miňová, and Vaňová (2021) argue that the strategic planning of biosphere reserve development requires the establishment of clear long-term development objectives and priorities, a concrete action plan, and, above all, measurable indicators that enable the systematic evaluation of progress towards the achievement of strategic goals. The authors further note that the socio-economic development of biosphere reserves cannot currently be

assessed accurately because development objectives and priorities are often insufficiently defined or lack measurable outcomes.

In addition to setting strategic objectives, the authors emphasize the importance of conducting comprehensive research and an in-depth assessment of the territory's development potential. This assessment should encompass natural and geographical, socio-economic, socio-demographic, and innovation-related dimensions. Only through a thorough evaluation of these development potentials can appropriate strategies and interventions be designed to support the sustainable development of a specific biosphere reserve (Vitálišová, Miňová, & Vaňová, 2021).

An additional contribution of strategic planning lies in recognising and evaluating the significance of natural and cultural heritage for national development, public policy, and the preservation of heritage assets. Such recognition supports ecological sustainability, an issue that has become increasingly urgent not only in the national context but also on a global scale. Bridgewater (2002) argues that knowledge generated through scientific research must ultimately be translated into meaningful management practices, while management itself should play a greater role in shaping future research priorities. Accordingly, both research and management should adopt a people-centred approach and be closely integrated with public policy formulation.

Ecological sustainability is a societal goal that can only be achieved through responsible human behaviour. As places where the conservation of nature is explicitly integrated with human development, biosphere reserves represent an important instrument for promoting genuinely sustainable development. Consequently, the strategic planning of biosphere reserves should begin with a comprehensive analysis of the territory, followed by the formulation of evidence-based sustainable development strategies. Wherever appropriate, these strategies should consider alternative development scenarios as part of a systematic strategic planning process, thereby providing a robust foundation for informed decision-making and the long-term sustainable management of the territory.

1.2.2. Specifics of the Strategic Planning of Biosphere Reserves in the Context of the Requirements of the UNESCO Man and the Biosphere (MAB) Programme and Slovak Legislation

The specific characteristics of the strategic objectives and strategic planning of biosphere reserves are defined by the framework of the UNESCO Man and the Biosphere (MAB) Programme, particularly through the MAB Strategy (2015–2025), the Lima Action

Plan (2016–2025), the Lima Declaration, and the current MAB Programme and its World Network of Biosphere Reserves (WNBR). These strategic documents establish the guiding principles and priorities for the planning, governance, and sustainable development of biosphere reserves worldwide.

As an intergovernmental programme of UNESCO, the MAB Programme provides a framework through which national governments are supported in the planning and implementation of research, education, and capacity-building activities by means of scientific advice and technical assistance. Countries participating in the MAB Programme establish National MAB Committees, which coordinate national involvement in the programme and define and implement country-specific activities. In Slovakia, this role is fulfilled by the Slovak National MAB Committee.

The MAB Programme currently brings together 158 National MAB Committees across 195 UNESCO Member States and nine Associate Member States. Its principal governing body is the International Coordinating Council (ICC), comprising representatives of 34 Member States elected by the UNESCO General Conference. The Council is chaired by a President and supported by five Vice-Presidents, each representing one of UNESCO's geopolitical regions. At the national and regional levels, the implementation and coordination of the MAB Programme are overseen by UNESCO's Ecological and Earth Sciences Division, which collaborates closely with UNESCO field offices around the world (UNESCO, 2015).

The strategic planning of biosphere reserves within the framework of the UNESCO Man and the Biosphere (MAB) Programme is directly linked to the strategic objectives derived from the core functions of biosphere reserves and from one of the most pressing global challenges of our time—climate change. This challenge was formally recognised in the Madrid Action Plan for Biosphere Reserves, which highlighted the critical role of biosphere reserves in addressing global environmental change. The strategic objectives and expected outcomes set out in the MAB Roadmap, building upon the MAB Strategy, the Lima Action Plan, and the Lima Declaration, are presented in the following section.

The first strategic objective is to conserve biodiversity, restore and enhance ecosystem services, and promote the sustainable use of natural resources. The second objective is to contribute to the development of sustainable, healthy, and equitable societies, resilient economies, and thriving human settlements living in harmony with the biosphere. The third objective focuses on advancing biodiversity and sustainability science, promoting education for sustainable development, and strengthening institutional and human capacities. The fourth

objective is to support climate change mitigation and adaptation, as well as responses to other dimensions of global environmental change.

To achieve these four overarching objectives, the MAB Strategy (2015–2025) defines a set of strategic action areas to guide the implementation of the programme. The first strategic action area focuses on strengthening the World Network of Biosphere Reserves (WNBR) as a global network of effectively functioning models of sustainable development.

The second strategic action area focuses on fostering inclusive, dynamic, and results-oriented cooperation and networking within the MAB Programme and the World Network of Biosphere Reserves (WNBR). The third area aims to strengthen external partnerships and secure adequate and sustainable funding for both the MAB Programme and the WNBR, with particular emphasis on collaboration beyond the MAB community. The fourth strategic action area promotes comprehensive, modern, open, and transparent communication, together with effective information and data sharing. The fifth and final area is dedicated to strengthening the governance and institutional effectiveness of the MAB Programme and the World Network of Biosphere Reserves.

The implementation of the MAB Strategy is operationalised through the MAB Action Plan, which establishes a set of measures designed to ensure the effective achievement of the Strategy's objectives. Progress in implementing the Strategy is assessed through a dedicated evaluation framework that links strategic objectives with the activities and expected outputs of the Action Plan. Evaluation is based on a system of performance indicators, verification mechanisms, and monitoring procedures that enable the systematic assessment of implementation and progress towards the Programme's strategic goals (UNESCO, 2017).

According to the *Technical Guidelines for Biosphere Reserves*, UNESCO (2021) identifies several key planning documents that should form the basis of the strategic planning process. Foremost among these is the management plan, which should cover a multi-year planning period, be developed through a participatory process, and be formally adopted by the appropriate decision-making authority. UNESCO outlines several reasons why a management plan is essential for biosphere reserves. First, it provides the fundamental guiding document for the governance and management of the biosphere reserve. It also defines the reserve's purpose, objectives, governance arrangements, and responsibilities. Furthermore, a management plan may serve as a prerequisite for securing financial support from national governments and potential donors. Equally important, the process of developing the plan creates opportunities for meaningful stakeholder engagement and helps ensure that the expectations of key stakeholder groups are adequately addressed. UNESCO further

emphasizes that ad hoc management without a formal plan is inherently ineffective, as it can easily deviate from the strategic vision and the long-term objectives of the biosphere reserve.

In addition to the management plan, the *Technical Guidelines for Biosphere Reserves* recommend the preparation of a business plan and a marketing plan, the latter incorporating a comprehensive communication strategy. Together, these documents provide an integrated framework for the strategic governance, sustainable financing, promotion, and long-term development of biosphere reserves (UNESCO, 2021).

The principal policy document currently guiding the development of Slovak biosphere reserves is the *Action Plan for the Implementation of the UNESCO Man and the Biosphere (MAB) Programme and the World Network of Biosphere Reserves in the Slovak Republic for the Period 2018–2025*. This document defines five strategic action areas derived from the international MAB framework but adapted to the specific conditions and priorities of Slovakia. These strategic areas provide an important foundation for the strategic planning and sustainable development of Slovak biosphere reserves (State Nature Conservancy of the Slovak Republic, 2022).

In practice, however, the planning documents prepared for biosphere reserves in Slovakia continue to focus predominantly on environmental protection and nature conservation. As a result, broader dimensions of strategic planning—including socio-economic development, stakeholder engagement, marketing, communication, and integrated territorial development—remain comparatively underrepresented, highlighting the need for a more comprehensive strategic planning approach.

These planning instruments include a range of spatial planning and territorial development documents, such as the Territorial System of Ecological Stability (TSES), Local Territorial Systems of Ecological Stability (LTSES), Regional Territorial Systems of Ecological Stability (RTSES), landscape-ecological plans, municipal, city, and regional spatial plans, visitor regulations for protected areas, and the economic and social development programmes of municipalities and regions. Collectively, these documents provide an important framework for land use, environmental management, and territorial development within biosphere reserves.

At the national level, strategic and policy documents relevant to nature conservation and landscape protection include the EU Habitats Directive and Birds Directive, management plans for Natura 2000 sites, national park management plans, species conservation plans, national policy documents concerning nature conservation, biodiversity protection, and sustainable development, the Nature and Landscape Protection Concept, the Development

Strategy of the State Nature Conservancy, communication and interpretation strategies for nature conservation, the *Envirostrategy 2030*, and environmental strategies developed by higher territorial units (self-governing regions). Together, these documents establish the legislative and strategic framework within which the planning and management of biosphere reserves in Slovakia are carried out.

Nevertheless, it remains evident that the principal strategic documents and policy frameworks applicable to biosphere reserves are predominantly focused on nature conservation and environmental protection. None of the key planning documents prepared for territories encompassing biosphere reserves comprehensively addresses their socio-economic development, thereby overlooking, to a considerable extent, the development function that constitutes one of the three core functions of biosphere reserves under the UNESCO MAB Programme.

Although these core strategic documents may be complemented by sector-specific planning instruments covering particular areas of territorial development—such as tourism development, support for entrepreneurship, agriculture, the food industry, traditional crafts, and cultural heritage (e.g., the Rural Development Programme, the Common Agricultural Policy Strategic Plan, tourism development plans, river basin management plans, and other sectoral strategies)—their effective integration with the strategic priorities and objectives of biosphere reserves remains limited in the Slovak context. A partial exception is the Poľana Biosphere Reserve, whose representatives have actively participated since 2013 in processes aimed at defining the development priorities and strategic directions of the municipalities located within the biosphere reserve. This example illustrates the potential benefits of integrating biosphere reserve governance with local strategic development planning while highlighting the need for a more systematic and coordinated approach across Slovak biosphere reserves.

All biosphere reserves in Slovakia face a number of common challenges. Based on both theoretical and empirical research, Vitálišová, Miňová, and Vaňová (2021) classify these challenges into three main categories. The first category concerns the insufficient recognition of biosphere reserves within the Slovak institutional and policy framework as territories of international significance and of their role in fulfilling international environmental agreements and the Sustainable Development Goals established under the 2030 Agenda for Sustainable Development.

The authors argue that Slovakia still lacks a clearly defined framework specifying the responsibilities, competencies, and institutional position of biosphere reserves in relation to

other actors operating within these territories. They therefore emphasize the need for a comprehensive system encompassing institutional, legislative, and financial arrangements that would provide biosphere reserves with an appropriate governance framework and enable them to fulfil their conservation, development, and logistical functions more effectively.

With regard to the Slovak legislative framework, the protection of nature and landscape, including biosphere reserves, is governed by several legal instruments. Of particular relevance is Decree No. 180 of the Ministry of the Environment of the Slovak Republic of 19 April 2021, implementing Act No. 543/2002 Coll. on Nature and Landscape Protection, under which a *biosphere reserve* is classified as a territory of international importance. However, neither the Act nor any other Slovak legal regulation provides a formal legal definition of the term *biosphere reserve*.

In contrast, the term *national park* is explicitly defined in Sections 19(1) and 19(2) of Act No. 543/2002 Coll. on Nature and Landscape Protection as *“an extensive area, generally exceeding 10,000 hectares, consisting predominantly of ecosystems that have remained substantially unaffected by human activities or that possess a unique and natural landscape structure, representing the country's most significant natural heritage, in which nature conservation takes precedence over all other activities, and which may be declared a national park by government regulation.”* According to the Act, the objective of national park protection is to preserve or progressively restore natural ecosystems, including ensuring the uninterrupted functioning of natural processes across at least three-quarters of the national park's territory. This objective is achieved through the zoning of the national park (Act No. 543/2002 Coll. on Nature and Landscape Protection, as amended).

However, a national park is not synonymous with a biosphere reserve or, more broadly, with a protected area. The principal distinction lies in the objectives for which these internationally and nationally recognised areas are designated. While the primary purpose of a national park, as defined by Slovak legislation, is the conservation and restoration of natural ecosystems and the maintenance of natural ecological processes, biosphere reserves pursue a substantially broader set of objectives. In accordance with the UNESCO Man and the Biosphere (MAB) Programme, biosphere reserves integrate biodiversity conservation with sustainable socio-economic development and support for research, education, monitoring, and capacity building. Their strategic planning must therefore address not only environmental protection but also the social, economic, institutional, and educational dimensions of sustainable territorial development.

The second major challenge is the absence of a long-term strategic approach to the development of biosphere reserves, an issue discussed in the previous section. This shortcoming stems largely from the limited attention and commitment of the responsible governing authorities, which often lack both the institutional capacity and the strategic focus necessary to ensure the effective management, planning, and long-term development of these territories. Consequently, Slovak biosphere reserves lack a number of essential strategic documents, including comprehensive development and management strategies, marketing and communication plans, methodological guidelines, and evaluation frameworks for assessing governance quality and overall performance. At present, the principal evaluation mechanism is the periodic review conducted every ten years under the UNESCO Man and the Biosphere (MAB) Programme.

A further challenge is the absence of a systematic financing mechanism for biosphere reserves. Identifying the actual budgets allocated to biosphere reserves in Slovakia is particularly difficult because they do not possess independent legal personality. As a result, financial resources are determined by the priorities and institutional commitments of the organisations responsible for their administration, and ultimately depend on the extent to which the management of these organisations embraces and supports the mission and objectives of the biosphere reserve. This institutional arrangement creates considerable uncertainty in long-term planning and limits the capacity of biosphere reserves to implement strategic development initiatives effectively.

The third major challenge is the insufficient understanding of biosphere reserve territories in terms of their socio-economic development potential and its relationship with biodiversity conservation. In particular, there is a lack of comprehensive knowledge that integrates environmental, social, and economic dimensions within a framework that promotes harmonious interactions between people and nature. This knowledge gap limits the ability of biosphere reserves to formulate evidence-based development strategies that effectively balance conservation objectives with the needs of local communities.

We argue that the application of a systematic strategic planning process within biosphere reserves could make a significant contribution to addressing both the second and the third categories of challenges.

Conclusions

We conceptualise biosphere reserves as socio-ecological systems that integrate ecological and social dimensions within a single territorial framework. Their existence creates

opportunities to better understand, manage, and strengthen the interactions between these interconnected systems (UNESCO, 2022). This concept is widely recognised as an approach that seeks to reconcile biodiversity conservation with sustainable development (Ishwaran, Persic, & Tri, 2008; Axelsson, Angelstam, Elbakidze, Stryamets, & Johansson, 2011).

Traditionally, biosphere reserves have been understood to fulfil three interrelated functions: conservation, sustainable development, and the support of research, monitoring, education, and capacity building (State Nature Conservancy of the Slovak Republic, 2022). More recently, however, UNESCO has expanded this perspective. The updated MAB Strategy (2021–2025) increasingly recognises a fourth function of biosphere reserves: supporting climate change mitigation and adaptation, together with responses to other dimensions of global environmental change (Špulerová et al., 2023).

From the perspective of economic theory, the conceptualisation of biosphere reserves draws upon several complementary theoretical frameworks. These include the theory of economic value (Randall & Stoll, 1983; Mayer & Job, 2014), the theory of public goods (e.g., Merlo & Briales, 2000; Link, 2022), theories of regional development—particularly endogenous growth theory and the theory of learning regions (Blažek & Uhlíř, 2021; Lepeška, 2012; Schultz & Lundholm, 2013; Schultz et al., 2018)—as well as management theory (Havidz & Suprpto, 2021) and theories of public participation and collaborative governance (Schultz, Duit, & Folke, 2011; Hahn, Olsson, Folke, & Johansson, 2006; Stoll-Kleemann & O'Riordan, 2002; Van Cuong, Dart, & Hockings, 2017; Walk, Luthardt, & Nölting, 2019).

The development of biosphere reserves can only be achieved in accordance with the principles of sustainable development (Batisse, 1997; Ishwaran, Persic, & Tri, 2008; Ishwaran, 2012; König et al., 2022; Reed & Price, 2020; Bridgewater, 2002; UNESCO, 1996; UNESCO, 2015). The effective implementation of these principles requires a strategic planning approach that integrates conservation objectives with socio-economic development and adaptive governance (e.g., Yazdandoost, 2019; Van Cuong, Dart, & Hockings, 2017; Job, Becken, & Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, & Torkayesh, 2022).

Strategic development planning should constitute an integral component of the management of every biosphere reserve worldwide. In practice, however, the development of many biosphere reserves remains neither strategic nor sufficiently aligned with the principles of sustainable development. The long-term development of these territories should therefore be based on systematically planned activities that emerge from a comprehensive strategic planning process.

Strategic planning can be understood as the process of creating and maintaining a strategic balance between the objectives and capacities of a territory and the changing opportunities and demands of its external environment (Vitálišová, 2017; Kita, 2002; Vaňová, 2006). According to Vitálišová (2017), strategic planning enables organisations and territories to anticipate future developments, respond proactively to environmental changes, and adapt more effectively to emerging trends. It represents a systematic and integrated approach to territorial development that enhances efficiency, strengthens interconnections among key actors, and creates conditions for achieving synergies. Furthermore, strategic planning promotes coordination across the territory and contributes to improved governance by fostering stakeholder participation in the formulation and implementation of local development policies.

The importance of strategic planning for biosphere reserves has been widely recognised in the literature. Numerous authors have emphasised the need for long-term development planning, strategic management, and the adoption of an integrated strategic approach to the planning and governance of biosphere reserves (e.g., Ortega-Alul, Vergara-Fernandez, Argandoña-Castro, & Gallardo-Alvarez, 2023; Kuhn, 2000; Martín-López, García-Llorente, Palomo, & Montes, 2011; Yazdandoost, 2019; Van Cuong, Dart, & Hockings, 2017).

The planning of biosphere reserves should be firmly grounded in the principles of sustainable development, ensuring that economic, social, and environmental objectives are addressed in a balanced and integrated manner (e.g., Wheeler, 2009; Brandon, Gorenflo, Rodrigues, & Waller, 2005; Kearney, Berkes, Charles, Pinkerton, & Wiber, 2007; Eizenberg & Jabareen, 2017; Schädler et al., 2011; Lyon, Hunter-Jones, & Warnaby, 2017). Accordingly, strategic planning should seek to reconcile biodiversity conservation with the socio-economic needs of local communities, thereby promoting the long-term resilience and sustainability of biosphere reserves.

A growing body of literature specifically emphasises the importance of planning and managing the socio-economic development of biosphere reserves (e.g., Castillo-Eguskiza, Schmitz, Onaindia, & Rescia, 2019; Moreira-Muñoz, Carvajal, Elórtegui, & Rozzi, 2019; Thao et al., 2023; Kuhn, 2000; Van Cuong, Dart, Dudley, & Hockings, 2018; Van Cuong & Brown, 2013; Van Cuong, Dart, & Hockings, 2017). Nevertheless, Raszka and Heldak (2023) argue that the development potential of biosphere reserves is still insufficiently reflected in strategically planned socio-economic development, as evidenced by the limited consideration of these areas in development strategies, planning documents, and territorial development

policies. Similar observations have been made by other authors, who note that planning practices remain predominantly focused on nature conservation, while comparatively little attention is devoted to broader socio-economic development objectives (Brandon & Wells, 1992; Brown, 2002).

The absence of comprehensive planning across these dimensions creates an opportunity for a more innovative and integrated approach to the sustainable development of biosphere reserves. At the same time, it directly responds to the widely recognised need for strategic planning in these territories (Job, Becken, & Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, & Torkayesh, 2022). Although strategic planning has been shown to support the achievement of desirable outcomes in the public sector, it has not yet become a sufficiently established or widespread practice (Bryson, Hamilton, Edwards, & Van Slyke, 2018; Bryson, Edwards, & Van Slyke, 2022).

We consider strategic planning to be an essential and irreplaceable instrument for the sustainable development of biosphere reserves. In this context, the strategic planning process encompasses the formulation of a shared vision and strategic objectives, the collection of data and implementation of strategic analyses, the preparation of an overarching development strategy, the development of strategies for individual stakeholder organisations, the identification of implementation measures, the execution of the strategy, and the continuous monitoring, evaluation, and control of both strategic objectives and implementation measures. Equally important are communication throughout the preparation of strategic planning documents and cooperation among stakeholders in reviewing, discussing, and disseminating these documents (Grünig & Kühn, 2002, 2015).

The development and strategic planning of biosphere reserves should be founded on participatory governance, with a strong emphasis on stakeholder engagement and partnership building. Such an approach is widely recognised as a prerequisite for the effective management and sustainable development of biosphere reserves (Sagie & Orenstein, 2022; Bouamrane et al., 2016; Stoll-Kleemann, De la Vega-Leinert, & Schultz, 2010; Monge-Ganuzas, Gurrutxaga, Muguruza, & Telleria, 2023; Walk, Luthardt, & Nölting, 2019; Wali et al., 2017; Engelbauer, 2023; Fritz-Vietta, Röttger, & Stoll-Kleemann, 2009; Nölting & Mann, 2018; Schultz, Duit, & Folke, 2011; Nikolakis, 2020; Folke & Berkes, 1998; Holling, 2001; Chapin, Kofinas, & Folke, 2009; Dearden, Bennett, & Johnston, 2005; Slocum-Bradley, 2003; Reed, 2008; Folke, Hahn, Olsson, & Norberg, 2005; Walker, 2002; Folke, Colding, & Berkes, 2003).

Biosphere reserves operate within the intergovernmental framework of UNESCO's Man and the Biosphere (MAB) Programme, which supports national governments in the planning and implementation of research, education, and capacity-building activities through technical assistance and scientific expertise. Participating countries establish National MAB Committees to coordinate their involvement in the Programme. In Slovakia, this role is fulfilled by the Slovak MAB Committee, which represents the country within the international MAB framework and is responsible for defining and implementing national MAB activities.

The strategic planning of biosphere reserves within the UNESCO MAB framework is directly guided by the strategic objectives arising from the core functions of biosphere reserves, while also responding to global challenges, particularly climate change. The importance of addressing climate change was explicitly recognised in the Madrid Action Plan for Biosphere Reserves, which identified biosphere reserves as key sites for developing and demonstrating innovative approaches to climate change mitigation and adaptation. The implementation of the MAB Strategy is supported by the MAB Action Plan, which establishes a coherent set of actions and priorities designed to ensure the effective achievement of the Strategy's objectives

The implementation of the MAB Strategy and Action Plan is evaluated using a framework of performance indicators, together with clearly defined means of verification and monitoring mechanisms (UNESCO, 2017). Through this evaluation system, biosphere reserves are assessed not only in terms of their conservation outcomes but also with regard to their contribution to sustainable development, stakeholder engagement, and adaptive governance.

Biosphere reserves are widely recognised as model territories and examples of best practice, demonstrating how the coexistence of people and nature can be fostered while advancing the objectives of the 2030 Agenda for Sustainable Development (UNESCO, 2022; Bridgewater, 2002; Van Cuong, Dart, & Hockings, 2017; Lepeska, 2012). Accordingly, one of the overarching aims of the UNESCO Man and the Biosphere (MAB) Programme is to support the implementation of the 2030 Agenda by promoting integrated approaches to biodiversity conservation, sustainable development, climate action, and resilient socio-ecological systems (Heinrup & Schultz, 2017; Rockström & Sukhdev, 2016; Stanvliet & Coetzer, 2020; Stoll-Kleemann & O'Riordan, 2017; UNESCO, 2015; UNESCO, 2017).

The principal strategic document currently guiding Slovak biosphere reserves is the *Action Plan for the Implementation of the UNESCO Man and the Biosphere (MAB) Programme and the World Network of Biosphere Reserves in the Slovak Republic for the*

Period 2018–2025. This document identifies five strategic action areas derived from the international priorities of the UNESCO MAB Programme, while adapting them to the specific national context and the needs of biosphere reserves in Slovakia. As such, it provides an important strategic framework for the planning and sustainable development of these territories (State Nature Conservancy of the Slovak Republic, 2022).

In practice, however, the strategic planning of biosphere reserves in Slovakia remains closely linked to planning documents that are primarily concerned with environmental protection. While these documents make an important contribution to nature conservation.

In general, none of the strategic or planning documents prepared for the territories encompassing Slovak biosphere reserves adequately addresses the socio-economic dimension of development. Consequently, the development function of biosphere reserves is largely overlooked, despite being one of their core functions under the UNESCO Man and the Biosphere (MAB) Programme. This imbalance results in planning frameworks that remain predominantly focused on environmental protection, while giving insufficient consideration to sustainable territorial development and the well-being of local communities.

Biosphere reserves in Slovakia face several interconnected challenges, including insufficient recognition of their status and significance, the absence of a comprehensive institutional, legislative, and financial framework, the lack of a long-term strategic approach to their development, and an inadequate understanding of their socio-economic potential in conjunction with biodiversity conservation and human–nature interactions. Addressing these challenges requires a more integrated and forward-looking approach to governance and development.

The application of a systematic strategic planning process within biosphere reserves has the potential to contribute substantially to overcoming many of these shortcomings. By providing a structured and participatory framework for decision-making, strategic planning creates opportunities to implement innovative approaches that integrate environmental, social, economic, and institutional objectives. The following chapters therefore explore how such an approach can be adapted and applied within the specific context of Slovak biosphere reserves (Vitálišová, Miňová, & Vaňová, 2021).

Based on the theoretical foundations presented above, we identified a significant research gap indicating that the strategic planning of biosphere reserve development remains a relatively new and underexplored field of research. Nevertheless, it represents an innovative and increasingly necessary approach to the governance and sustainable development of biosphere reserves. Existing studies highlight the importance of individual aspects of

biosphere reserve management; however, there is still a lack of comprehensive frameworks that integrate these dimensions into a coherent strategic planning process. Biosphere reserves should adopt an integrated approach encompassing all dimensions of territorial development—environmental, social, and economic—with the overarching objective of achieving sustainable development. Furthermore, such a planning process should be founded on the principles of participatory governance.

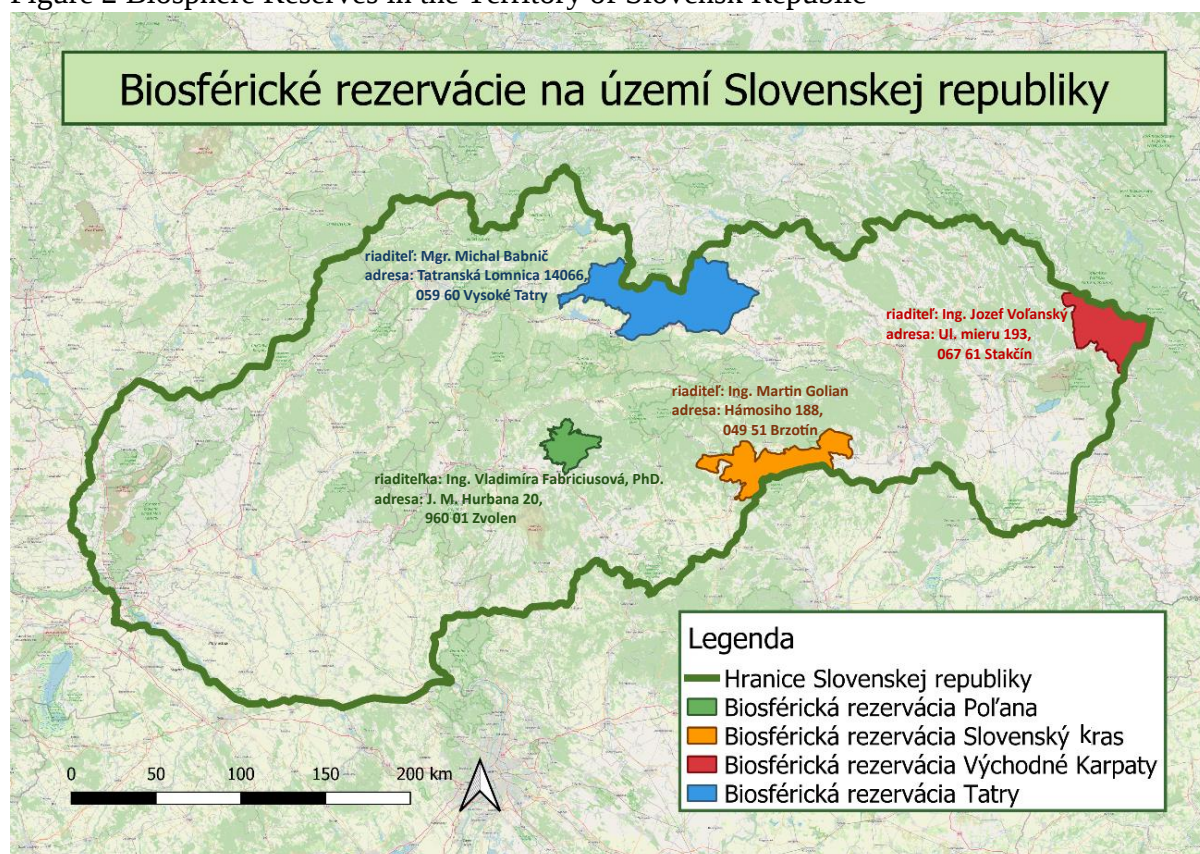
2. OBJECTIVES, MATERIALS AND RESEARCH METHODS

This chapter introduces the object and subject of the dissertation. It then presents the research objective and research questions, as well as the materials and research methods employed in the dissertation.

2.1. Object and Subject of the Dissertation

The object of investigation of this dissertation comprises biosphere reserves located in the Slovak Republic and abroad. As shown in Figure 2, there are four biosphere reserves in the Slovak Republic: the Poľana Biosphere Reserve, the Slovak Karst Biosphere Reserve, the East Carpathians Biosphere Reserve, and the Tatras Biosphere Reserve. These reserves constitute the object of investigation within the context of the Slovak Republic.

Figure 2 Biosphere Reserves in the Territory of Slovensk Republic



Source: Author's own processing in QGIS

The Slovak Karst Biosphere Reserve, designated in 1977, was the first biosphere reserve established in Slovakia. Covering an area of 74,500 ha, the reserve is home to one of the richest assemblages of flora and fauna in Central Europe. Its most significant natural features include karst caves, geological formations, and karst springs (Hochmuth, 1997). The Slovak Karst is located within districts experiencing negative economic development, characterized by high unemployment, the outmigration of young people seeking employment

in more developed regions, and a high proportion of low-income households. Tourism infrastructure in the area also remains underdeveloped and requires reconstruction and further development to improve the quality of services provided. One possible approach to stimulating positive change in the region is to attract external investment while actively fostering cooperation and engagement among local stakeholders to create an attractive tourism offer. The Hungarian part of the biosphere reserve may serve as a source of inspiration, as the national park is one of the largest employers in the region (Nestorová Dická, Gessert, Bryndzová, & Telbisz, 2020). The Slovak Karst Biosphere Reserve is administered by the Slovak Karst National Park, a state-funded contributory organization.

The second biosphere reserve is Poľana, located in central Slovakia. It was established in 1990 and is considered one of the best-managed protected areas in the world. Covering an area of 24,158.23 hectares, it is the highest volcanic mountain range in Slovakia, distinguished by its unique geological and geomorphological features resulting from volcanic activity that occurred approximately 13–15 million years ago. The main economic activities in the area are agriculture and forestry. From a folkloric and ethnographic perspective, the region ranks among the most significant in Slovakia. Although the area offers relatively limited employment opportunities, the importance of tourism has been steadily increasing in recent years. (Vitálišová & Vavrušová, 2023) The Poľana Biosphere Reserve is administered by the Poľana Protected Landscape Area (PLA) Administration, which does not have legal personality and operates as an organizational unit of the State Nature Conservancy of the Slovak Republic, a state-funded organization.

The third biosphere reserve, established in 1998, is the Eastern Carpathians. A significant part of this 40,689.92-hectare area consists of exceptional old beech forests and primeval beech forests, which is one of the reasons why this biosphere reserve is one of the most attractive parts of Slovakia from a tourism perspective. It attracts approximately 25,000 visitors annually, with an upward trend. The infrastructure in this area is continuously improving. (Vitálišová, Miňová, Vaňová, 2021) The area is crisscrossed by educational hiking trails and features historical monuments, such as those from World War I and World War II. Thanks to the sparse population in the area, the location is known for having some of the darkest skies, making it ideal for astro-tourism. The typical inhabitants are Rusyns, who are distinguished by their own customs, traditions, and culture. The Eastern Carpathians Biosphere Reserve falls under the administration of the Poloniny National Park, a state-funded organization.

The last of the four biosphere reserves, designated in 1992, is the Tatra Mountains, which are exceptional precisely because of their high-mountain character and the well-preserved features of traditional folk culture. It covers an area of 101,819.05 hectares. Tourism, spa services, and recreational activities have been documented here since 1871, which is why most of the local population works in this sector. During the season, 3.5 to 4 million tourists visit this biosphere reserve. (Vitálišová, Miňová, Vaňová, 2021) The Tatra Biosphere Reserve falls under the administration of the Tatra National Park, a state-funded organization.

For the purposes of the international research that is part of this dissertation, foreign biosphere reserves are also the subject of study. These consist of 205 biosphere reserves located on the European continent, excluding those on the Asian continent. In this work, we use the term “biosphere reserves located on the European continent.” The subject of the research is strategic development planning.

2.2. Objectives and Research Questions

The main objective (O₀) of this dissertation is to examine, based on a theoretical definition of the concept of biosphere reserves and current approaches to the management and planning of their development, the current state of strategic planning for the development of biosphere reserves in Slovakia and on the European continent; and, based on this analysis and examples of best practices from abroad, to develop a proposal for a methodological approach to strategic development of biosphere reserves and recommendations for its implementation. To achieve the main objective, we have established five sub-objectives:

C₁: To define and identify the specific aspects of strategic planning for the development of biosphere reserves based on theoretical approaches found in professional and scientific literature and the requirements of the UNESCO Man and the Biosphere Program.

C₂: To examine the current state of strategic planning in biosphere reserves in the Slovak Republic with a view to identifying the specific development potential of biosphere reserves, assessing the quality of life within them, and evaluating their operations and cooperation with stakeholders.

C₃: To examine the current state of strategic planning in biosphere reserves on the European continent with a view to identifying examples of best practices in assessing the potential of biosphere reserve areas, evaluating the quality of life within them, and their operations and cooperation with stakeholders.

C4: Compare selected issues and challenges in the area of strategic planning in biosphere reserves on the European continent with those in biosphere reserves in the Slovak Republic.

C5: Develop a proposed methodology for the strategic planning of biosphere reserves and recommendations for its implementation, based on the results of the analysis and examples of best practices from other countries.

In line with the established subgoals, we examined seven research questions in this dissertation:

V1: What are the distinctive characteristics of strategic planning for the development of biosphere reserves?

V2: How do biosphere reserves in the Slovak Republic implement strategic planning in their development?

V3: How is the participatory approach to strategic planning implemented in the development of biosphere reserves in the Slovak Republic?

V4: Have the strategic plans for biosphere reserves in the Slovak Republic, developed in compliance with the requirements and recommendations of the UNESCO Man and the Biosphere (MAB) Programme Technical Manual for Biosphere Reserves, been made publicly available?

V5: How is strategic planning for the development of biosphere reserves implemented in practice across Europe?

V6: In what ways is the participatory approach integrated into strategic planning in international biosphere reserves across the European continent?

V7: Have the biosphere reserve plans in Europe, prepared in accordance with the requirements and recommendations of the UNESCO Man and the Biosphere (MAB) Programme Technical Manual for Biosphere Reserves, been published?

The research questions listed above are based on identified theoretical concepts of strategic planning, sustainable development, participatory governance, public participation theory, public goods theory, endogenous development, and learning regions. These concepts highlight that biosphere reserves represent model areas whose development should be based on the principles of sustainability, participatory management, and strategic planning (Ishwaran, Persic, Tri, 2008; Axelsson et al., 2011; Van Cuong, Dart, Hockings, 2017; Grünig, Kühn, 2002, 2015; Vitálišová, 2017). Questions **V1**, **V2** and **V5** are based primarily on the concept of strategic planning for the development of biosphere reserves, which is viewed as a tool for ensuring the sustainable development of these areas (Job, Becken, Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, Torkayesh, 2022; Van Cuong, Dart,

Hockings, 2017; Yazdandoost, 2019). Questions V₃ and V₆ are based on the concept of participatory management and stakeholder engagement, which, within the context of biosphere reserve management, is considered an approach that enables the harmonization of the interests of various actors in the strategic planning of biosphere reserve development (Reed, 2008; Schultz, Duit, Folke, 2011; Walk, Luthardt, Nölting, 2019; Van Cuong, Dart, Hockings, 2017; Stoll-Kleemann, De la Vega-Leinert, Schultz, 2010). Questions V₄ and V₇ build on the framework of UNESCO's Man and the Biosphere Program, which emphasizes the need for strategic planning documents for biosphere reserves—particularly management plans—developed through a participatory process and geared toward achieving sustainable development goals (UNESCO, 2017; UNESCO, 2021). The formulated research questions provide a link between the theoretical framework and the empirical part of the study. They also facilitate the interpretation of the research findings by enabling an assessment of the extent to which the theoretical principles identified in relation to strategic planning, participatory governance, and the requirements of the UNESCO Man and the Biosphere (MAB) Programme are implemented in practice within biosphere reserves in the Slovak Republic and across the European continent.

We addressed sub-objective C₁ and research question V₁ in the first chapter of this thesis.

We achieved sub-objective C₂ and research questions V₂ and V₃ was achieved through structured interviews examining perceptions of the status of biosphere reserves and the planning of their development at the national level, as well as the planning of their development from the perspective of biosphere reserve managers in the Slovak Republic; and through questionnaire surveys assessing the quality of life in biosphere reserves within the Slovak Republic by their residents, assessing the cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders, and evaluating the offerings of biosphere reserves in the Slovak Republic by tourists. We addressed research question V₄ by analyzing the plans of biosphere reserves in the Slovak Republic.

We achieved sub-objective C₃ by analyzing the strategic planning for the development of biosphere reserves on the European continent. We addressed research questions V₅ and V₆ through a primary analysis of strategic planning for the development of biosphere reserves on the European continent using a questionnaire survey. We addressed research question V₇ through a secondary analysis of biosphere reserve plans on the European continent.

Based on the findings from sub-objectives C₂ and C₃, we achieved sub-objective C₄, and we achieved sub-objective C₅ based on the findings from all previous sub-objectives.

Figure 3 shows a diagram of the objectives, research questions, and related primary and secondary analyses conducted as part of the research in the Slovak Republic and across Europe.

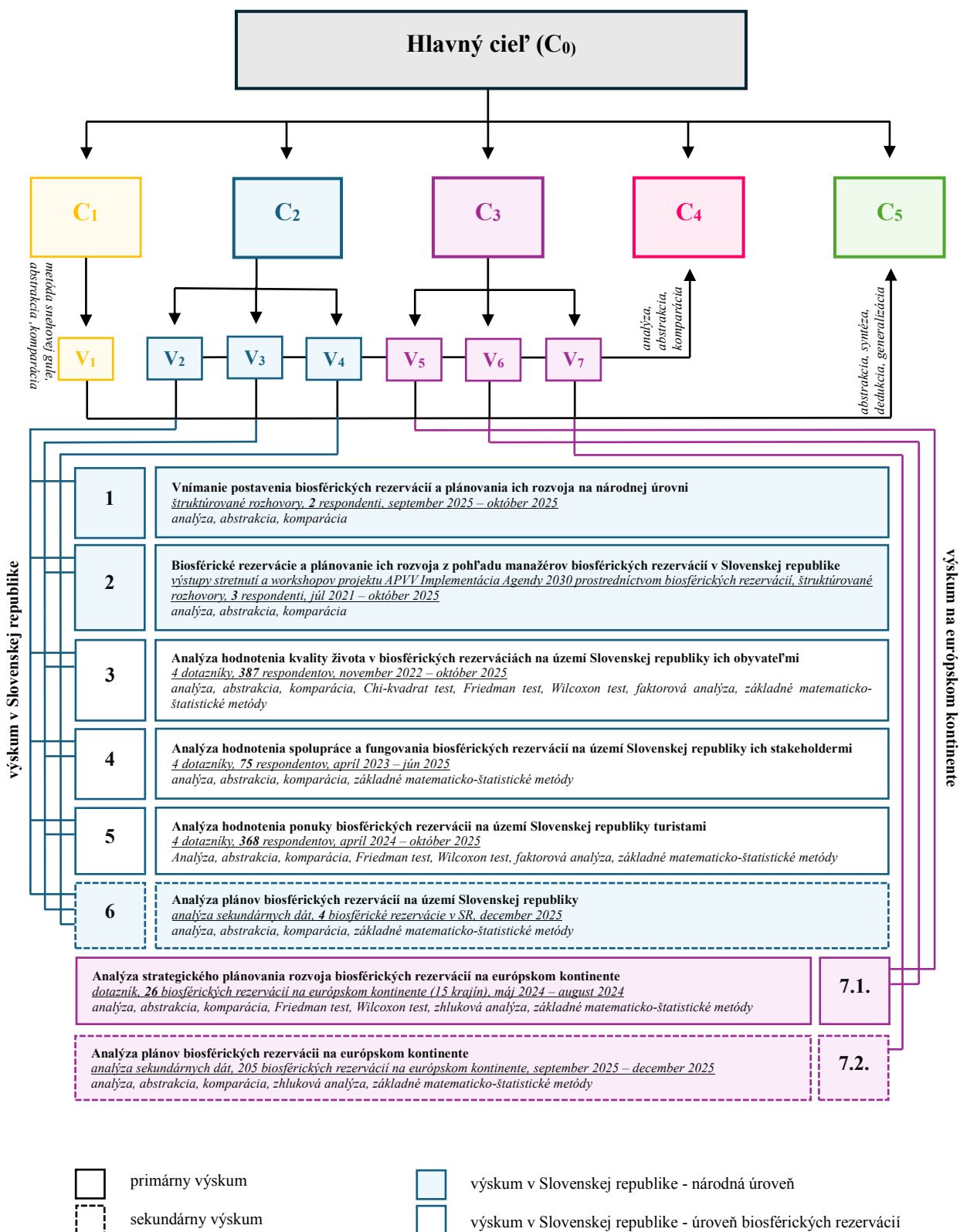


Figure 3 Outline of the Objectives and Research Questions of the Dissertation
Source: Author's own elaboration

2.3. Materials and Methods of the Study

As part of the literature review and the preparation of the theoretical section, we answered research question **V₁** and achieved Objective **C₁**. The study was based on a wide range of monographs, scientific articles and studies, programmes, statutes, plans, strategies, projects, and an analysis of domestic legislation, legal regulations, and decrees of the Slovak Republic concerning biosphere reserves and the strategic planning of their development. An in-depth literature review was conducted using the snowball sampling method, the method of abstraction, and the comparative method on a sample of publications retrieved from the Scopus, ResearchGate, ScienceDirect, and Google Scholar databases. Scientific articles and studies were identified using subject-area filters and keywords related to the strategic planning of biosphere reserve development.

To achieve sub-objective **C₂** and address research questions **V₂** and **V₃**, we conducted structured interviews to examine perceptions of the role of biosphere reserves and the planning of their development at the national level. To obtain a comprehensive understanding of biosphere reserves, we conducted structured interviews at the national level with representatives of various government sectors. The aim of the interviews was to analyse perceptions of the role of biosphere reserves and the planning of their development in the Slovak Republic at the national level. The analysis focused on perceptions of biosphere reserves and their significance, the strategic planning of biosphere reserve development, the 2030 Agenda and sustainable development, the legislative framework, institutional and capacity arrangements, participatory governance, financing, communication, and the evaluation and monitoring of biosphere reserves. We approached six respondents: the National Coordinator for the UNESCO World Natural Heritage Programme from the Ministry of the Environment of the Slovak Republic; the former Ambassador and Permanent Delegate of the Slovak Republic to UNESCO in Paris from the Ministry of Foreign and European Affairs of the Slovak Republic; the Head of the Education Section of the Slovak Commission for UNESCO from the Ministry of Education of the Slovak Republic; the Director of the Department of International Cooperation from the Ministry of Culture of the Slovak Republic; a representative of the Department of State Policy and International Cooperation in Tourism from the Ministry of Tourism and Sports of the Slovak Republic; and a representative of the Agenda 2030 for Sustainable Development Unit of the Office of the Government of the Slovak

Republic. Despite repeated requests, only two respondents agreed to participate in the interviews, which constitutes a limitation of the study and affects the scope of the analysis. The study sample therefore consisted of the former Ambassador and Permanent Delegate of the Slovak Republic to UNESCO and the representative of the Agenda 2030 for Sustainable Development Unit of the Office of the Government of the Slovak Republic. The interviews were conducted online via Microsoft Teams between September and October 2025. The main structure of the structured interview questions is provided in Appendix 2. The collected data were analysed using the methods of analysis, abstraction, and comparison.

A further component of the research undertaken to address research questions **V₂** and **V₃** involved collecting information from the outcomes of meetings and workshops organised within the APVV project 'Implementation of the 2030 Agenda through Biosphere Reserves', with the participation of managers representing biosphere reserves in the Slovak Republic. The meetings and workshops were conducted during the implementation of the APVV project 'Implementation of the 2030 Agenda through Biosphere Reserves' from 1 July 2021 to 30 June 2025. The information obtained from these activities was supplemented with additional data collected through structured interviews. The aim was to analyse perceptions of the role of biosphere reserves and the planning of their development in the Slovak Republic from the perspective of biosphere reserve managers. The analysis focused on the legislative framework, institutional and capacity arrangements, participatory governance, contributions to the 2030 Agenda and sustainable development, financing, communication, and the evaluation and monitoring of biosphere reserves. The interviews were conducted either in person or online via Microsoft Teams between June and October 2025. The main structure of the structured interview questions is presented in Appendix 3. The data were analysed using the methods of analysis, abstraction, and comparison.

To address research questions **V₂** and **V₃**, we also conducted questionnaire surveys to assess the quality of life in biosphere reserves in the Slovak Republic from the perspective of their residents, the cooperation and functioning of biosphere reserves from the perspective of their stakeholders, and the tourism offer of biosphere reserves from the perspective of visitors.

The aim of the first questionnaire survey was to assess the quality of life in the biosphere reserves of the Slovak Republic from the perspective of their residents. The survey focused on respondents' satisfaction with various aspects of their quality of life in the biosphere reserves, their knowledge and perceptions of the biosphere reserves, and their level of awareness and mobility within the biosphere reserves. The study sample comprised a total of 462 respondents across the biosphere reserves: 146 from the Poľana Biosphere Reserve,

103 from the Slovak Karst Biosphere Reserve, 111 from the East Carpathians Biosphere Reserve, and 102 from the Tatras Biosphere Reserve. To ensure the representativeness of the sample with respect to two quota variables—gender and age groups—the sample was reduced. After adjustment, the final study sample comprised 387 respondents across the biosphere reserves: 113 from the Poľana Biosphere Reserve, 103 from the Slovak Karst Biosphere Reserve, 99 from the East Carpathians Biosphere Reserve, and 72 from the Tatras Biosphere Reserve. The questionnaires were administered electronically using Qualtrics Survey and distributed via email, social media, and websites, as well as through field data collection. Respondents were selected using non-probability convenience sampling. Data collection in the biosphere reserves was conducted between November 2022 and October 2025. The questionnaire is provided in Appendix 4. The research formed part of the APVV project 'Implementation of the 2030 Agenda through Biosphere Reserves'. As part of the doctoral dissertation, additional data were collected in all biosphere reserves in the Slovak Republic, and selected results are presented in this thesis. The data were analysed using the Friedman test, the Wilcoxon test, factor analysis, the methods of analysis, abstraction, and comparison, and basic mathematical and statistical methods. When analysing responses to the open-ended questionnaire questions, we used the AI tool ChatGPT to generate codes for the respondents' answers. These codes were subsequently revised, compared with the original responses, and assigned to their final categories. A standardised prompt was used to generate the codes, supplemented with the selected question and the corresponding responses: "I need to code the responses to an open-ended questionnaire question: (insert the wording of the question). Generate codes for all responses, prepare a comparison table showing each response and its corresponding code, and provide a summary table of the codes. Responses to the question: (insert the responses to the question)." Further details on the study sample are provided in Table 2 and Figure 4.

Table 2 Demographic Characteristics of Respondents in the Analysis of Quality of Life in Biosphere Reserves in the Slovak

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry
Pohlavie				
Žena	51%	57%	60%	51%
Muž	49%	43%	40%	49%
Veková skupina				
<18-30	30%	35%	30%	24%
31-50	40%	33%	29%	38%

> 51	30%	32%	40%	44%
Dosiahnuté vzdelanie				
Bez základného vzdelania	0%	2%	2%	0%
Základné vzdelanie	3%	12%	13%	3%
Stredoškolské vzdelanie	16%	20%	25%	14%
Úplné stredoškolské vzdelanie	29%	28%	38%	28%
Vysokoškolské vzdelanie	28%	32%	21%	54%
Status				
Zamestnaný	41%	45%	40%	68%
SZČO	10%	3%	4%	4%
Študent/študentka	10%	16%	16%	6%
Nezamestnaný/á	1%	6%	9%	3%
Dôchodca/dôchodkyňa	13%	22%	27%	17%
Na otcovskej/materej/rodičovskej dovolenke	2%	3%	3%	1%
Odvetvie zamestnania/SZČO				
Priemysel	3%	2%	4%	3%
Poľnohospodárstvo	4%	1%	1%	0%
Lesné hospodárstvo	1%	0%	0%	0%
Stavebníctvo	3%	2%	1%	0%
Ostatné výrobné odvetvia	5%	6%	7%	8%
Ostatné nevýrobné odvetvia	17%	35%	31%	58%

Source: Our own analysis of the research results

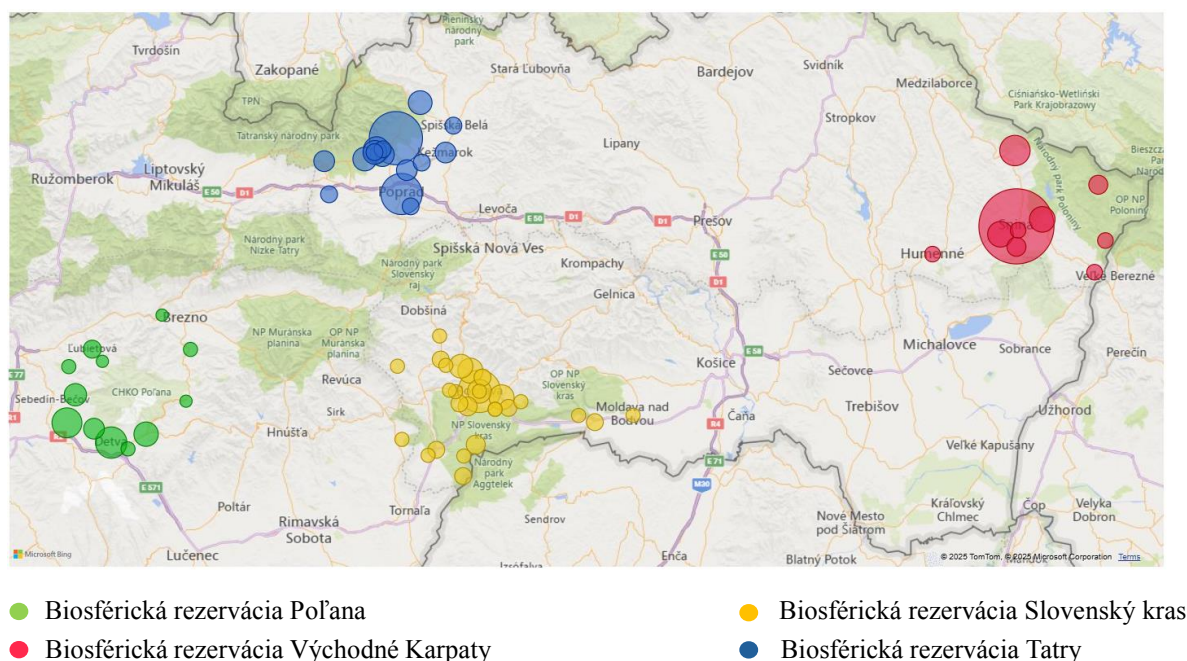


Figure 4: Location of Origin of Residents in Selected Biosphere Reserves

Source: Our own analysis of research results in PowerBI

To verify the representativeness of the sample according to the two selected quota features, we used the Chi-square test method and the SPSS program. The tested sample had to achieve a p value greater than 0.05, i.e. 5%, in both examined representativeness features. From the point of view of representativeness by gender, the p value exceeded 0.05 in the case of the Pol'ana Biosphere Reserve at a value of 0.944, see Appendix 5, in the case of the Slovak

Karst Biosphere Reserve at a value of 0.202, see Appendix 6, in the case of the Eastern Carpathians Biosphere Reserve at a value of 0.056, see Appendix 7 and in the case of the Tatras Biosphere Reserve at a value of 0.947, see Appendix 8. We then tested the representativeness based on age groups, which we narrowed from the original six (<18, 19-30, 31-40, 41-50, 51-60, >61) to three (<18-30, 31-50, >51) due to low frequencies in the original sample intervals. For this testing, we also used the Chi-square test method and the SPSS program. The sample we tested exceeded the p value of 0.05 in the case of the Poľana Biosphere Reserve at a value of 0.060, see Appendix 9, in the case of the Slovak Karst Biosphere Reserve at a value of 0.605, see Appendix 10, in the case of the Eastern Carpathians Biosphere Reserve at a value of 0.989, see Appendix 11, and in the case of the Tatra Biosphere Reserve at a value of 0.051, see Appendix 12. Based on these results, we can claim that our research sample is representative according to both quota characteristics in all biosphere reserves in the Slovak Republic. The limits of this analysis are the unrepresentativeness of the sample according to education or place of residence within the selected biosphere reserve. Based on these results, we can claim that our research sample is representative according to both quota characteristics in all biosphere reserves in the Slovak Republic. The limits of this analysis are the unrepresentativeness of the sample according to education or place of residence within the selected biosphere reserve.

Another part of the research involved collecting primary data from stakeholders operating within the biosphere reserves of the Slovak Republic using a quantitative survey method in the form of a questionnaire. The aim of the analysis was to evaluate the cooperation and functioning of the biosphere reserves in Slovakia from the perspective of their stakeholders. The analysis focused on examining stakeholders' awareness and perceptions of the selected biosphere reserves, as well as their assessment of the quality of governance, cooperation, and civic engagement within these territories.

The research sample consisted of a total of 75 respondents from the biosphere reserves: 17 from the Poľana Biosphere Reserve, 29 from the Slovak Karst Biosphere Reserve, 14 from the East Carpathians Biosphere Reserve, and 15 from the Tatras Biosphere Reserve.

The respondents included mayors, municipal leaders, and representatives of local public institutions operating in the fields of culture, education, nature conservation and forestry, healthcare, and mountain rescue services. The sample also comprised representatives of accommodation and catering establishments, cafés, teahouses, clubs, associations, regional organizations, research institutes, tourism and information centres, museums, galleries,

theatres, private manufacturing and service enterprises, as well as private commercial and entertainment businesses.

Due to adjustments made to the questionnaire during the course of the research, identical questions were not used across all biosphere reserves (see Appendix 13). For the purposes of the analysis, comparable questions were consolidated, while reserve-specific questions were analysed separately.

The questionnaires were administered electronically using Qualtrics Survey and distributed primarily via email, complemented by field data collection conducted within the biosphere reserves. A purposive sampling strategy was employed. During field data collection, respondent selection was also influenced by their physical accessibility, for example, their operating hours.

Data collection was supported by partners involved in the APVV project *Implementation of the 2030 Agenda through Biosphere Reserves*, who distributed the electronic questionnaires to stakeholders with whom they cooperated. This represents a limitation of the analysis, which we sought to mitigate through field data collection. Questionnaire data were collected from April 2023 to June 2025.

The data were analysed using the methods of analysis, abstraction, and comparison, together with basic mathematical and statistical methods. MS Excel was used for data testing and analysis.

When analysing responses to the open-ended questionnaire items, we used the AI tool ChatGPT to generate codes for respondents' answers. These codes were subsequently compared with the original responses, revised where necessary, and assigned to their final categories. A standardised prompt was used to generate the codes, supplemented with the relevant question and the corresponding responses:

“I need to code the responses to an open-ended questionnaire question: *(insert the wording of the question)*. Generate codes for all responses, prepare a comparative response–code table, and create a summary table of the codes. Responses to the question: *(insert the responses)*.”

The third partial study consisted of an analysis aimed at evaluating the tourism offer of the biosphere reserves in the Slovak Republic from the perspective of their visitors. The analysis focused on tourists' satisfaction with the quality of various aspects of their stay in the selected biosphere reserve, their awareness and perceptions of the selected biosphere reserve in Slovakia, and their behaviour while visiting these protected areas.

Primary data were collected using a quantitative survey method in the form of a questionnaire administered to tourists visiting the biosphere reserves in the Slovak Republic. The questionnaire was conducted electronically using Qualtrics Survey and distributed via email, social media, and websites, as well as through in-person field data collection. A non-probability convenience sampling strategy was employed for respondent selection.

A limitation of this analysis is that questionnaire data collection was influenced by situational factors, seasonal conditions, and the difficulty of recruiting respondents, reflecting the varying numbers of visitors across the individual biosphere reserves. The questionnaires are provided in Appendix 14.

Data collection was conducted between April 2024 and October 2025. The research sample comprised a total of 368 respondents from the biosphere reserves, including 100 respondents from the Poľana Biosphere Reserve, 102 from the Slovak Karst Biosphere Reserve, 56 from the East Carpathians Biosphere Reserve, and 110 from the Tatras Biosphere Reserve.

To provide a more detailed overview of the research sample, its characteristics are presented in Table 3 and Figure 5.

Table 3 Demographic Characteristics of Respondents in the Analysis of the Tourism Offer in the Biosphere Reserves of the Slovak Republic

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry
Pohlavie				
Žena	51%	69%	36%	59%
Muž	49%	31%	64%	41%
Veková skupina				
≤18	4%	5%	4%	11%
19-30	6%	16%	9%	15%
31-40	25%	25%	13%	19%
41-50	35%	22%	34%	30%
51-60	11%	24%	18%	14%
≥61	19%	9%	23%	12%
Status				
Nezamestnaný	2%	1%	2%	3%
Študent	8%	13%	9%	22%
Dôchodca	17%	8%	25%	7%
Zamestnanec	67%	74%	63%	62%
Na materskej/otcovej/rodičovskej dovolenke	2%	2%	0%	3%
SZČO	4%	3%	2%	4%
Odvetvie zamestnania/SZČO				
Priemysel	3%	5%	14%	8%
Poľnohospodárstvo	2%	0%	2%	0%

Lesné hospodárstvo	0%	1%	0%	0%
Stavebníctvo	1%	4%	11%	5%
Ostatné výrobné odvetvia	9%	5%	5%	9%
Ostatné nevýrobné odvetvia	52%	47%	32%	38%

Source: Authors' own processing of the research results

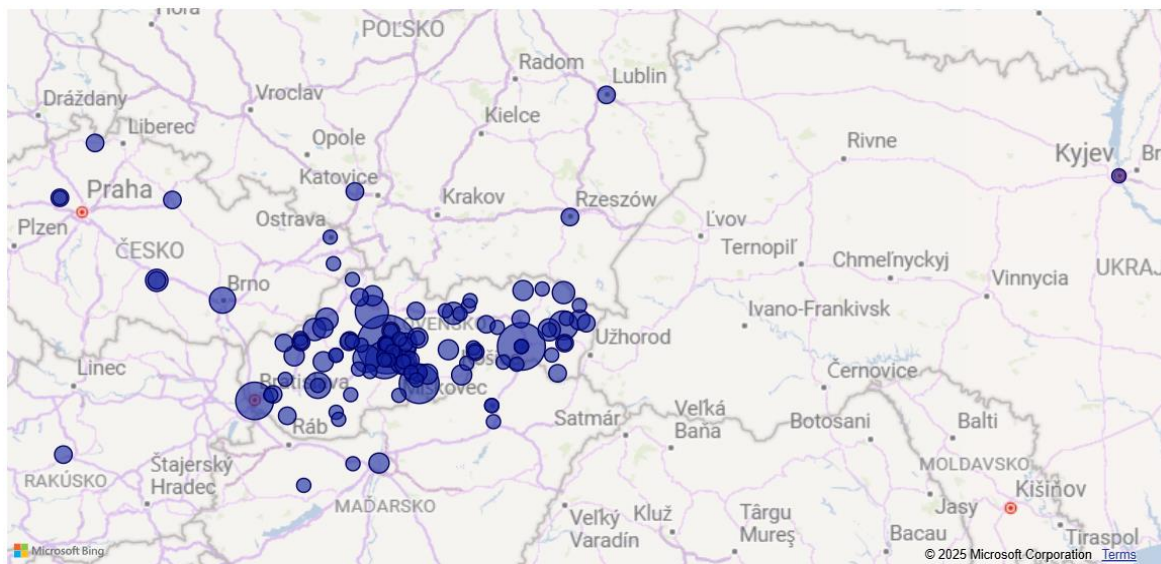


Figure 5 Respondents' Place of Origin

Source: Authors' own processing of the research results using Microsoft Power BI

The data were analysed using the Friedman test, the Wilcoxon signed-rank test, factor analysis, and the methods of analysis, abstraction, and comparison, together with basic mathematical and statistical methods.

When analysing responses to the open-ended questionnaire items, we used the AI tool ChatGPT to generate codes for the respondents' answers. These codes were subsequently compared with the original responses, revised where necessary, and assigned to their final categories. A standardised prompt was used to generate the codes, supplemented with the relevant question and the corresponding responses:

“I need to code the responses to an open-ended questionnaire question: *(insert the wording of the question)*. Generate codes for all responses, prepare a comparative response–code table, and create a summary table of the codes. Responses to the question: *(insert the responses)*.”

Research Question **V₄** was addressed through secondary research involving an analysis of the management and strategic planning documents of the biosphere reserves in the Slovak Republic. Using secondary data obtained from publicly available online sources, the analysis examined the current state of strategic planning within the biosphere reserves, focusing on the assessment of quality of life, the evaluation of the development potential of their territories, and the functioning of and cooperation with stakeholders, in accordance with

the requirements and recommendations set out in the *Technical Guidelines for Biosphere Reserves* of UNESCO's *Man and the Biosphere (MAB) Programme*. These data were complemented by information obtained from structured interviews with the managers of the biosphere reserves, insights gathered during meetings and workshops organised within the APVV project *Implementation of the 2030 Agenda through Biosphere Reserves*, and findings from field data collection conducted within the study areas.

The research sample comprised all four biosphere reserves in the Slovak Republic: the Poľana Biosphere Reserve, the Slovak Karst Biosphere Reserve, the East Carpathians Biosphere Reserve, and the Tatras Biosphere Reserve. Data collection was carried out in December 2025.

The current status was evaluated across four thematic groups using the following scale: **1 – Yes, 2 – Rather yes, 3 – Rather no, 4 – No, and 0 – Cannot be assessed.**

The data were analysed using the methods of analysis, abstraction, comparison, and basic mathematical and statistical techniques. By addressing Research Questions **V₂**, **V₃** and **V₄**, we achieved Partial Objective **C₄**.

The achievement of Partial Objective **C₃** was ensured by examining the strategic planning of biosphere reserve development across the European continent. This objective was addressed through Research Questions **V₅** and **V₆** by analysing primary data collected through a questionnaire survey on the strategic planning of European biosphere reserves.

The analysis focused on the governance, administration, management, and strategic planning of biosphere reserves across Europe. The respondents were representatives of biosphere reserves located on the European continent. The target population consisted of all European biosphere reserves, while the sampling frame comprised 205 biosphere reserves located across Europe. The final research sample included 26 biosphere reserves (12.7% of the sampling frame) representing 15 countries (see Figure 6).

The biosphere reserves included in the research sample were predominantly single-country reserves (77%), while bilateral and trilateral biosphere reserves each accounted for 11.5% of the sample.

The respondents were primarily aged 50–59 years (42%), followed by those aged 30–49 years (35%), 60 years and older (19%), and 19–29 years (4%). None of the respondents were younger than 18 years.

Regarding their professional positions, the respondents were mainly directors or managers of biosphere reserves (42%), followed by biosphere reserve coordinators (15%), contact persons or administrators (15%), research or scientific coordinators (8%), members of

biosphere reserve councils (4%), consuls (4%), conservators (4%), and representatives in other positions.

The respondents' educational backgrounds were predominantly in the natural and applied sciences (63%), followed by the social sciences (12%), business, economics and management (8%), and the humanities (6%). Respondents who selected the "Other" category (12%) reported qualifications in fields such as medicine and military studies.

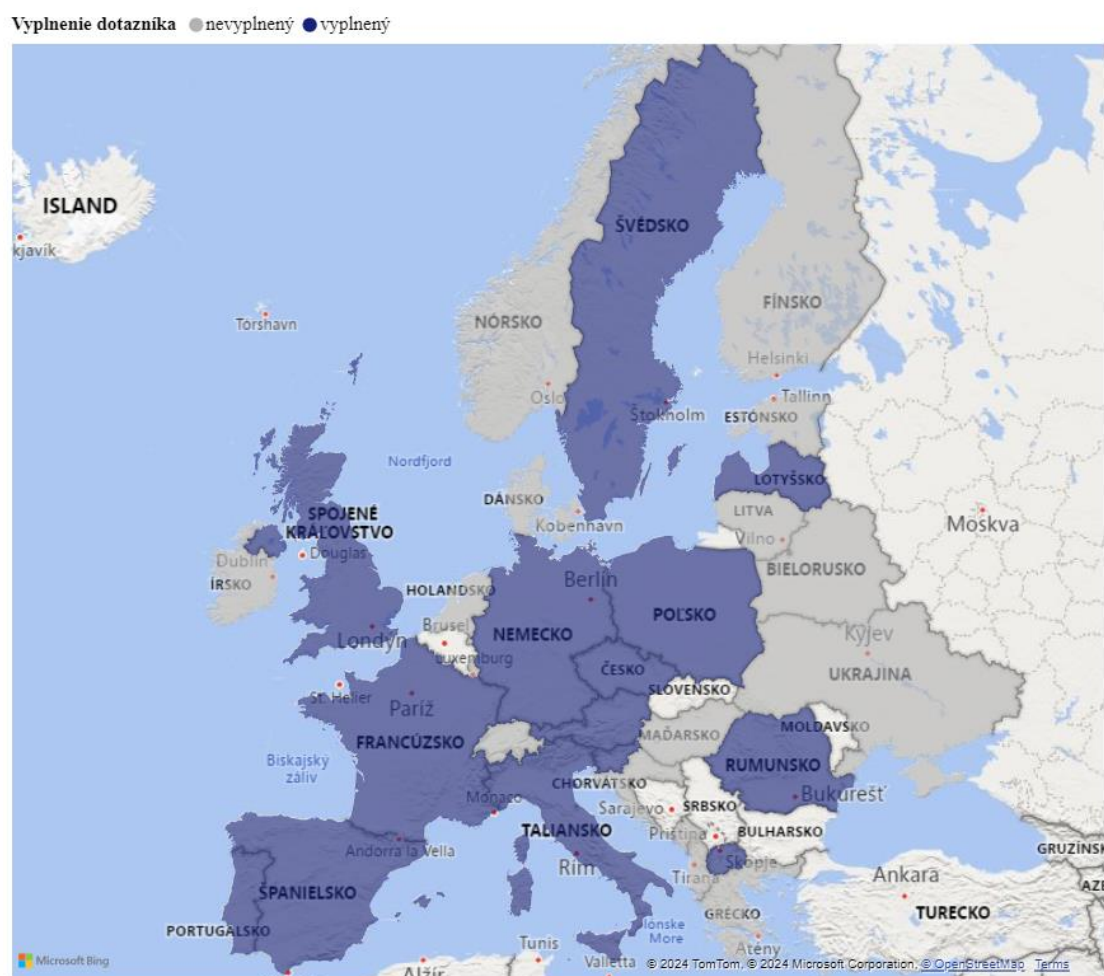


Figure 6 European Countries Included in the Study

Source: Authors' own processing of the research results using Microsoft Power BI

The survey was administered electronically using Qualtrics Survey and distributed via email. Data collection was conducted between May 2024 and August 2024. The questionnaire consisted of 32 questions (see Appendix 15).

The data were analysed using the Friedman test, the Wilcoxon signed-rank test, cluster analysis, and the methods of analysis, abstraction, and comparison, together with basic mathematical and statistical methods.

To fully achieve Partial Objective **C₃**, Research Question **V₇** was also addressed through secondary research involving an analysis of the management and strategic planning documents of biosphere reserves across the European continent.

The analysis focused on examining the current state of strategic planning in European biosphere reserves, with particular attention to identifying examples of good practice in the assessment of quality of life, the evaluation of territorial development potential, and the functioning of and cooperation with stakeholders, in accordance with the requirements and recommendations set out in the *Technical Guidelines for Biosphere Reserves* of UNESCO's *Man and the Biosphere (MAB) Programme*.

The research sample comprised 205 biosphere reserves located across the European continent (see Appendix 44). Data collection was conducted between September 2025 and December 2025.

The AI tool ChatGPT was used to support the data collection process, including the identification, translation, and analysis of management plans and related documents. The plans of the biosphere reserves were analysed using a standardised prompt, supplemented with the selected country and the biosphere reserves located within that country:

“I need to analyse the biosphere reserves of (selected country) in four thematic blocks. First, I need to classify all biosphere reserves into groups according to the type and availability of their published management or planning document. Then, I would like to analyse each group according to the following four thematic blocks:”

A: Is there a publicly available planning or management document for the biosphere reserve? If yes, please provide the corresponding link or source. If such a document exists, determine whether it is strategic in nature; that is, whether it defines strategic objectives, specifies corresponding measures or activities, and whether these activities are measurable and can be monitored and evaluated? B: Does the plan assess housing conditions or living conditions of local residents? Does it evaluate the provision and quality of services, such as transport, energy supply, or infrastructure? Finally, does the planning document include an evaluation of implemented activities or measures, or a framework for monitoring and assessing their effectiveness? C: Does the planning document include an assessment of the biosphere reserve's development potential, such as its natural-geographical, socio-demographic, socio-economic, or innovation potential? In particular, does the document include an evaluation of the biosphere reserve's socio-economic potential? D: Does the biosphere reserve actively involve local citizens and stakeholders in its governance and decision-making processes? Is the biosphere reserve managed using a participatory

governance approach? Does it have a formal governance structure, such as management bodies, advisory boards, or committees? Are thematic or working groups established to support its activities?

Does the biosphere reserve secure financial support through sponsors or fundraising activities? Does it implement its own initiatives or projects? Is the biosphere reserve active on social media platforms or through regular news updates on its official website? The biosphere reserves in [selected country] are: *[list of biosphere reserves in the selected country]*.

The generated results were subsequently verified and compared against the original sources, including the relevant management or planning documents, official websites, and social media profiles, until we were satisfied that the prompt had been appropriately configured and that the generated information accurately reflected the available evidence. Whenever discrepancies arose between our prior knowledge and the AI-generated output, the information was re-examined and validated against the original sources.

The current status of each biosphere reserve was evaluated across the four thematic blocks using the following scale: **1 – Yes, 2 – Rather yes, 3 – Rather no, 4 – No, and 0 – Cannot be assessed.**

The data were analysed using cluster analysis, together with the methods of analysis, abstraction, comparison, and basic mathematical and statistical techniques.

Based on the findings obtained from the achievement of Partial Objectives **C₂** and **C₃**, Partial Objective **C₄** was accomplished. The data were analysed using the methods of analysis, abstraction, and comparison. The data were analysed using the methods of analysis, abstraction, and comparison. Based on the findings of all the analyses conducted, we employed the methods of abstraction, synthesis, generalisation, and deduction to formulate a proposed methodology for the strategic planning of biosphere reserve development, together with recommendations for its implementation. These recommendations were informed by examples of good practice identified in European biosphere reserves and were developed using the methods of abstraction, deduction, and comparison. In doing so, Partial Objective **C₅** was achieved.

For the translation and preparation of figures reproduced from the planning documents of European biosphere reserves as examples of good practice, we used the AI tool ChatGPT to translate all textual elements while preserving the original graphical layout. The translated figures were subsequently reviewed, compared with the original documents, and revised where necessary to ensure their accuracy.

For the testing, analysis, and visualisation of the data in relation to the objectives of this study, we used IBM SPSS Statistics, Microsoft Excel, and Microsoft Power BI.

3. RESULTS AND DISCUSSION

This chapter presents the results of the analyses of strategic development planning in the Slovak Republic. It begins with the findings from interviews examining perceptions of the role of biosphere reserves and the planning of their development at the national level, as well as from the perspective of biosphere reserve managers in Slovakia.

The chapter then presents the results of questionnaire surveys evaluating the quality of life in the biosphere reserves of the Slovak Republic from the perspective of local residents, the functioning of and cooperation within biosphere reserves from the perspective of stakeholders, and the tourism offer of the biosphere reserves from the perspective of visitors. This is followed by the results of the analysis of the planning documents of biosphere reserves in the Slovak Republic.

Finally, the chapter presents the findings of the analyses of strategic development planning in European biosphere reserves. These include the results of a questionnaire survey on strategic planning practices among European biosphere reserves, based on primary data, as well as the analysis of secondary data in the form of planning and management documents of biosphere reserves across the European continent.

3.1. Perceptions of the Role of Biosphere Reserves and Their Development Planning at the National Level

To provide a comprehensive understanding of the issues surrounding biosphere reserves, structured interviews were conducted at the national level with representatives of various government sectors. The aim was to analyse perceptions of the role and development planning of biosphere reserves in the Slovak Republic from a national perspective.

The analysis focused on stakeholders' perceptions of biosphere reserves and their significance, strategic planning for biosphere reserve development, the implementation of the 2030 Agenda and sustainable development, the legislative framework, institutional and organisational capacity, participatory governance, funding mechanisms, communication, and the evaluation and monitoring of biosphere reserves.

The respondents perceive biosphere reserves not merely as protected areas, but as territories where people and nature coexist in harmony, integrating environmental, social, and economic dimensions. Their significance is understood as the practical implementation of sustainable development and as a response to contemporary environmental and climate-

related challenges. Biosphere reserves are viewed as places where changes in behaviour, values, and economic thinking should be fostered.

The respondents consistently agreed that biosphere reserves make a substantial contribution to the achievement of the *2030 Agenda for Sustainable Development*. They regard them as platforms for integrating climate, environmental, social, and regional policies, while also serving as testing grounds for innovative approaches that extend beyond traditional indicators of economic growth, such as Gross Domestic Product (GDP).

At the same time, respondents expressed criticism regarding the current understanding of sustainable development, noting that the concept remains ambiguous and is interpreted inconsistently within the Slovak context. They further argued that existing economic and evaluation frameworks fail to adequately capture the long-term environmental and social benefits generated by biosphere reserves.

The respondents did not reach a consensus that the absence of a specific legislative framework for biosphere reserves in the Slovak Republic constitutes a fundamental problem. They noted that UNESCO does not require biosphere reserves to have a particular legal status and argued that formal legal recognition alone does not guarantee their effective functioning. Simply defining responsibilities in legislation is insufficient, as successful implementation ultimately depends on the commitment and cooperation of the actors involved.

According to the respondents, the principal challenge lies in the fragmentation of competencies, policies, and institutional responsibilities affecting biosphere reserves. The current system of public administration in the Slovak Republic is perceived as ineffective in addressing cross-sectoral policies and complex issues, such as the development and management of biosphere reserves. They further highlighted that policy coherence—both across sectors and between different levels of governance—remains insufficiently developed within the Slovak governance system.

The respondents agreed that a comprehensive approach to the strategic planning of biosphere reserves is not currently implemented in the Slovak Republic. In particular, they highlighted the absence of effective interministerial and cross-sectoral planning. One of the identified shortcomings is that the Competence Act, which should provide the framework for such planning, does not adequately address cross-cutting policy issues. Respondents also identified frequent changes associated with political cycles and shifting governmental priorities as a significant obstacle to long-term strategic planning.

As a key recommendation, the respondents proposed the development of a long-term national strategy for biosphere reserves, which would serve as the basis for strategic plans

tailored to individual biosphere reserves. These plans should be aligned with the strategic planning documents of national parks and protected landscape areas and should be publicly accessible. According to the respondents, ensuring functional coordination and cooperation among institutions is more important than achieving formal organisational integration. They also criticised the insufficient consideration of socio-economic development within the planning and management of biosphere reserves.

The respondents unanimously agreed that participatory governance is an essential component of effective biosphere reserve management and that all relevant stakeholders should be actively involved in decision-making processes. Insufficient stakeholder participation was associated with low public awareness, limited political interest, and persistent conflicts between economic and environmental interests.

The respondents perceived the current human resource capacity dedicated to biosphere reserve management as insufficient and highlighted the need for dedicated managers and multidisciplinary teams, particularly in view of the international commitments arising from participation in UNESCO's *Man and the Biosphere (MAB) Programme*. They also identified the financing of biosphere reserves as inadequate and insufficiently defined. According to the respondents, no systematic funding mechanism currently exists for biosphere reserves in the Slovak Republic, and the availability of financial resources is closely linked to the extent to which biosphere reserves are recognised as a political priority.

The respondents expressed support for the development of cooperative financing mechanisms. They identified opportunities for fundraising, entrepreneurial activities, and the development and marketing of local products as potential sources of financial sustainability. At the same time, however, they cautioned against the risks of excessive commercialisation and branding. While stronger branding could help attract sponsors and additional funding, it might also undermine the core values and guiding principles of UNESCO's *Man and the Biosphere (MAB) Programme*.

The respondents confirmed that public awareness of biosphere reserves in the Slovak Republic remains low. They suggested that greater public outreach and promotion of the concept could also contribute to stronger political recognition and support for biosphere reserves.

The respondents also noted the dominant position of national parks in comparison with biosphere reserves and supported the development of national guidelines for the use of the biosphere reserve brand within the Slovak context. Furthermore, they recommended the preparation of dedicated communication and marketing strategies for biosphere reserves,

together with a unified visual identity, including a common logo, while respecting the rules and values of UNESCO.

Another challenge identified by the respondents is UNESCO's ten-year periodic review cycle, which they considered too long to effectively support the continuous monitoring and adaptive management of biosphere reserves.

3.2. Biosphere Reserves and Their Development Planning from the Perspective of Biosphere Reserve Managers in the Slovak Republic

Another component of the research involved collecting information from the outputs of meetings and workshops organised within the APVV project *Implementation of the 2030 Agenda through Biosphere Reserves*, with the participation of managers representing the biosphere reserves in the Slovak Republic. These data were supplemented with additional information obtained through structured interviews where necessary.

The aim was to analyse perceptions of the role and development planning of biosphere reserves in the Slovak Republic from the perspective of biosphere reserve managers. The analysis focused on managers' views regarding the strategic planning of biosphere reserve development, the legislative framework, institutional and organisational capacity, participatory governance, the implementation of the 2030 Agenda and sustainable development, financing, communication, and the evaluation and monitoring of biosphere reserves.

The respondents confirmed that the absence of a legislative framework for biosphere reserves is perceived as a systemic problem, resulting in the lack of clearly defined competencies and responsibilities, as well as stable and predictable funding. The biosphere reserve agenda is regarded as a secondary priority within the current governance system. Biosphere reserves are perceived more as a symbolic or prestigious designation than as an effective instrument for regional development.

In three of the Slovak biosphere reserves, responsibility for the biosphere reserve agenda is incorporated into the management of the respective national park. Managers emphasised that it represents only one of many responsibilities within their broader remit. In one biosphere reserve, the manager described the agenda as having long been "invisible", receiving little internal attention and having virtually no influence on the management or development of the territory.

Although the respondents expressed differing views on the most appropriate legal form for biosphere reserves, they agreed that biosphere reserves should possess a genuine legal and

institutional identity that enables them to operate effectively. Two main governance models emerged from the respondents' perspectives. The first is the establishment of an independent membership-based organisation or association, inspired by regional tourism organisations, in which members voluntarily participate in both the financing and governance of the biosphere reserve. The second model involves placing the biosphere reserve under the legal entity of a national park while ensuring a clearly designated team and dedicated budget for biosphere reserve activities. Such an arrangement would facilitate effective cooperation between the national park, local governments, landowners, and other relevant stakeholders.

The respondents also highlighted the challenge arising from the differing identities and branding of national parks and biosphere reserves, which weakens the public recognition and visibility of biosphere reserves. The managers unanimously agreed that biosphere reserves should not be reduced solely to their nature conservation function but should be recognised as integrated platforms for sustainable regional development.

The respondents identified the expected competencies of biosphere reserves as including the coordination of sustainable regional development, support for local entrepreneurs, products, and services, mediation between nature conservation objectives and the socio-economic needs of the region, and the preparation or coordination of regional development strategies.

In practice, however, these competencies are not being fully realised, primarily due to the absence of an appropriate legislative framework, insufficient human resource capacity, and unclear responsibility for outcomes. All interviews consistently confirmed that assigning only a single person to manage a biosphere reserve represents the absolute minimum and constitutes a significant systemic risk. According to the managers, the minimum staffing level should be one to two full-time employees to ensure continuity and substitution when necessary, while the optimal staffing level would consist of three to four employees with responsibilities corresponding to the different functions of a biosphere reserve, complemented by external experts and, where possible, administrative support staff.

All managers regarded stakeholder participation as an essential element of effective biosphere reserve governance. The key stakeholder groups identified included local governments, regional stakeholders, local organisations and institutions, local entrepreneurs, and owners of privately held land.

The preferred degree of openness within participatory processes differed among the respondents. Some managers advocated fully open participation throughout the planning and decision-making process, whereas others supported broad stakeholder involvement during the

strategic planning and development phases but preferred a more restricted approach to final decision-making, emphasising the need for professional expertise.

One manager also reflected on negative experiences from the past, when biosphere reserve management was carried out without the meaningful involvement of local stakeholders. According to the respondent, this approach resulted in a loss of trust, reduced stakeholder engagement, and diminished identification with and acceptance of the management process, ultimately giving rise to a range of implementation challenges. Rebuilding mutual trust and restoring constructive dialogue with local stakeholders has since proved to be a demanding and time-consuming process.

The respondents further agreed that, by their very existence, biosphere reserves contribute to the achievement of the *2030 Agenda for Sustainable Development*, although not to the extent of their full potential. One respondent stated that this potential remains underutilised due to the absence of a coherent development concept and the insufficient emphasis placed on the development function of biosphere reserves.

All four case studies also confirmed the absence of comprehensive strategic planning for biosphere reserve development in the Slovak Republic. Although annual operational work plans exist in some cases, these documents cannot be regarded as strategic plans. They do not reflect all three functions of biosphere reserves, were not developed through participatory processes, and have limited influence on the everyday lives of local communities.

The respondents emphasised that biosphere reserves should create a tangible competitive advantage for local communities through their existence and activities. All biosphere reserve managers also agreed that the strategic planning of biosphere reserve development is essential.

One respondent pointed out that biosphere reserves cannot rely solely on their reputation or create an impression of relevance without implementing meaningful activities. The respondent stressed the importance of responding to current developments and policy trends within the European Union and the broader global context. Another respondent highlighted the limited understanding of the biosphere reserve concept among stakeholders, which complicates the implementation of joint activities and collaborative initiatives.

All biosphere reserve managers agreed that none of the existing planning documents adequately addresses the socio-economic planning of biosphere reserve development. One respondent described this as a significant shortcoming, noting that current planning and evaluation focus predominantly on environmental aspects, while the available data are insufficient even for their comprehensive assessment.

According to the biosphere reserve managers, the current periodic evaluation system is generally considered adequate; however, several criticisms were raised. One respondent argued that the evaluation process is overly formal, insufficiently tailored to the European context, and focused primarily on broad qualitative questions rather than on measurable performance indicators.

The respondent further recommended introducing shorter evaluation cycles in the form of annual reports, complemented by quantitative indicators, clearly defined baseline conditions and target values, and a stronger linkage between evaluation outcomes, accountability, and decision-making processes within the biosphere reserve.

All biosphere reserve managers recommended that management and strategic planning documents should be publicly accessible. They also unanimously agreed that biosphere reserves should develop both a business plan and a fundraising strategy to support their long-term financial sustainability.

Cooperative financing mechanisms were regarded as highly desirable; however, the respondents considered their implementation under current conditions to be difficult, or even unfeasible, primarily because biosphere reserves in the Slovak Republic lack independent legal status. This institutional limitation significantly constrains their ability to establish and manage sustainable financing arrangements.

At present, activities related to biosphere reserves are implemented in three biosphere reserves only as part of the broader activities of the respective national park administrations and are therefore financed from the budgets of these state-funded organisations. In the Poľana Biosphere Reserve, such activities are carried out within the activities of the Protected Landscape Area Administration, which operates as an organisational unit of the State Nature Conservancy of the Slovak Republic. Consequently, it is not possible to determine precisely what proportion of financial resources is allocated specifically to biosphere reserve activities.

Furthermore, the managers agreed that biosphere reserves should have dedicated communication plans. Most respondents also supported the development of a unified logo and visual identity as part of the marketing strategy for biosphere reserves, thereby strengthening a common umbrella identity for the UNESCO biosphere reserve designation. One respondent, however, advocated preserving a strong regional identity for each individual biosphere reserve, rather than adopting a fully unified branding approach.

3.3. Analysis of Quality of Life Assessment in the Biosphere Reserves of the Slovak Republic from the Perspective of Local Residents

The following section presents the findings of the analysis of quality of life in the biosphere reserves of the Slovak Republic from the perspective of local residents. The aim of the analysis was to assess the quality of life of residents living within the biosphere reserves of the Slovak Republic.

The analysis focused on residents' satisfaction with various aspects of their quality of life within the biosphere reserves, their awareness and knowledge of the biosphere reserves, their perceptions of these protected areas, and issues related to information provision and mobility within the biosphere reserves of the Slovak Republic.

In the analysis of quality of life in the biosphere reserves of the Slovak Republic from the perspective of local residents, we focused on evaluating the individual dimensions of quality of life. We first present the average scores for each assessed dimension across the individual biosphere reserves, as well as the overall results for all biosphere reserves in the Slovak Republic (Table 4).

Respondents evaluated each dimension using a five-point scale ranging from **-2 (very dissatisfied)** to **+2 (very satisfied)**.

Table 4 Assessment of Quality-of-Life Dimensions by Residents of the Biosphere Reserves

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry	Biosférické rezervácie na území
Pracovné príležitosti	0,41	-0,96	-1,13	0,06	-0,40
Možnosti podnikania	0,15	-1,00	-0,81	0,30	-0,34
Nákupné možnosti	0,71	0,33	0,53	0,21	0,44
Verejné stravovanie	0,09	0,24	0,75	0,46	0,39
Športové možnosti	0,76	0,26	0,43	0,90	0,59
Sociálne služby	0,33	-0,15	0,03	-0,05	0,04
Zdravotnícke služby	-0,16	-0,66	-0,11	0,38	-0,14
Lekáreň	1,05	1,20	1,52	1,13	1,22
Bankomat	0,15	1,16	1,35	1,31	0,99
Verejné priestranstvá a zeleň	0,68	0,43	0,32	0,50	0,48
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	0,76	1,18	1,38	1,34	1,17
Možnosti agroturistiky	0,62	0,12	0,63	0,31	0,42
Starostlivosť/ochrana o kultúrno-historických pamiatok	0,41	-0,16	0,91	-0,71	0,11
Kvalita ciest a chodníkov	-0,23	-0,88	-1,03	-0,38	-0,63
Kvalita internetového pokrytia	0,73	0,95	1,52	1,12	1,08
Frekvencia spojov medzi obcami a do miest	0,30	0,00	0,41	-0,23	0,12
Dostupnosť územia autobusom	0,60	0,21	0,35	0,32	0,37
Dostupnosť územia vlakom	-0,61	-0,44	0,28	0,52	-0,06
Propagácia regiónu	0,44	-0,08	0,01	0,55	0,23
Informácie o prírodných a kultúrno-historických hodnotách územia	0,39	0,22	0,44	0,43	0,37
Súčasný manažment starostlivosti o národný park		-0,09	0,18	-0,79	-0,23
Možnosti parkovania		-0,29	-0,04	-0,43	-0,25
Socio-ekonomický potenciál priemer	0,38	0,07	0,36	0,33	0,27
Zachovávanie tradícií, remesiel, folklóru	1,30	0,88	1,25	-0,09	0,83

Kultúrne vyžitie	0,77	0,29	0,54	-0,14	0,36
Medziľudské vzťahy	0,29	-0,10	0,33	0,41	0,23
Vzťahy starousedlíkov s novousedlíkmi	0,30	0,09	0,94	0,13	0,37
Možnosti pre bývanie, výstavbu domov, bytov	-0,14	-0,08	-0,64	-0,68	-0,38
Informácie o dianí v území	0,34	0,67	1,10	0,37	0,62
Bezpečnosť územia	0,43	0,00	0,55	0,97	0,49
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)	0,97	0,74	1,22	0,90	0,96
Organizácia nových/komerčných podujatí	0,48	0,53	0,72	0,33	0,52
Socio-demografický potenciál priemer	0,53	0,34	0,67	0,24	0,44
Programy/aktivity v oblasti ochrany životného prostredia a prírody	0,03	0,06	0,31	-0,53	-0,03
Kvalita životného prostredia	0,80	0,78	1,47	0,85	0,98
Opatrenia zamerané na ochranu životného prostredia a prírody	0,32	-0,01	1,01	-0,14	0,30
Krajinný ráz územia		1,16	1,10	0,35	0,87
Separáciu odpadu	0,46	0,15	0,54	0,13	0,32
Prírodno-geografický potenciál priemer	0,40	0,43	0,89	0,13	0,49
Možnosti vzdelávania	0,32	0,42	0,45	0,63	0,45
Angažovanosť obyvateľov vo verejnom živote	-0,19	-0,37	0,21	-0,36	-0,18
Využívanie obnoviteľných zdrojov energie	-0,18	-0,31	-0,06	-0,24	-0,20
Práca volených predstaviteľov miest a obcí	0,31	0,12	-0,67	-0,63	-0,22
Spolupráca aktérov v území	0,23	0,38	-0,24	0,02	0,10
Inovačný potenciál priemer	0,10	0,05	-0,06	-0,12	-0,01
Celkový potenciál priemer	0,38	0,17	0,44	0,23	0,30

Source: Authors' own processing of the research results

Within the Poľana Biosphere Reserve, local residents rated the preservation of traditions, crafts, and folklore as the highest-quality aspect (1.30). In the Slovak Karst Biosphere Reserve, the availability of pharmacy services received the highest rating (1.20). In the East Carpathians Biosphere Reserve, both pharmacy services and the quality of internet coverage were rated equally highest (1.52). In the Tatra Biosphere Reserve, the highest-rated aspect was the opportunities for nature interpretation and education (e.g., nature trails and information boards) (1.34). Across all biosphere reserves in the Slovak Republic, pharmacy services achieved the highest average rating (1.22).

Conversely, the lowest-rated aspect in the Poľana Biosphere Reserve was rail accessibility (-0.61). In the Slovak Karst Biosphere Reserve, residents identified opportunities for entrepreneurship as the weakest area (-1.00). In the East Carpathians Biosphere Reserve, the availability of employment opportunities received the lowest rating (-1.13). In the Tatra Biosphere Reserve, respondents rated the current management of the national park as the least satisfactory aspect (-0.79). On average, the quality of roads and footpaths was identified as the lowest-rated aspect across all biosphere reserves in the Slovak Republic (-0.63). Graphs presenting the ratings for each biosphere reserve, with the assessed aspects ranked according to their evaluation, are provided in Appendix 16, Appendix 17, Appendix 18, and Appendix 19. As shown in Table 4, the individual quality-of-life aspects were classified into the identified territorial potential categories. Based on the results, the natural-geographical potential received the highest average rating (0.49), whereas the innovation potential was rated the lowest (-0.01). Overall, the biosphere reserve with the highest-rated territorial potential

was the East Carpathians Biosphere Reserve (0.44), while the Slovak Karst Biosphere Reserve received the lowest overall rating (0.17). On a scale ranging from -2 to 2, the average evaluation of the overall potential of the biosphere reserves in the Slovak Republic by local residents was 0.30.

Based on the responses of our research sample, the Friedman test was used to determine whether local residents in the selected biosphere reserves evaluated the individual quality-of-life domains similarly or differently. As shown in Table 5 and Appendix 20, the mean ranks indicate that respondents assessed the individual quality-of-life domains differently. In the Poľana Biosphere Reserve, residents were most satisfied with the preservation of traditions, crafts, and folklore (mean rank = 28.67), whereas they were least satisfied with the accessibility of the area by rail (mean rank = 12.07). In the Slovak Karst Biosphere Reserve, respondents expressed the highest level of satisfaction with the landscape character (mean rank = 30.32) and the lowest level of satisfaction with the quality of roads and footpaths (mean rank = 11.46). In the East Carpathians Biosphere Reserve, residents were most satisfied with the availability of pharmacy services (mean rank = 31.28) and least satisfied with the quality of roads and footpaths (mean rank = 8.78). In the Tatra Biosphere Reserve, the highest satisfaction was reported for opportunities for nature interpretation and education (mean rank = 30.22), while the lowest satisfaction was associated with the care and maintenance of cultural and historical heritage sites (mean rank = 13.61).

The original, unabridged tables containing the mean ranks for all quality-of-life domains are presented in Appendix 20.

Table 5 Friedman Test Results for the Evaluation of Individual Quality-of-Life Domains by Local Residents in Selected Biosphere Reserves in the Slovak

Biosférická rezervácia Poľana		Biosférická rezervácia Slovenský kras	
	Mean Rank		Mean Rank
Zachovávanie tradícií, remesiel, folklóru	28,67	Krajinný ráz územia	30,32
Lekáreň	26,51	Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	29,63
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)	25,18	Lekáreň	29,43
:	:	:	:
Využívanie obnoviteľných zdrojov energie	13,84	Možnosti podnikania	11,83
Kvalita ciest a chodníkov	13,63	Pracovné príležitosti	11,66
Dostupnosť územia vlakom	12,07	Kvalita ciest a chodníkov	11,46

Biosférická rezervácia Východné Karpaty		Biosférická rezervácia Tatry	
	Mean Rank		Mean Rank
Lekáreň	31,28	Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	30,22
Kvalita životného prostredia	30,77	Bankomat	29,84
Kvalita internetového pokrytia	30,65	Lekáreň	29,04

Možnosti podnikania	10,15	Súčasný manažment starostlivosti o národný park	14,22
Pracovné príležitosti	9,28	Práca volených predstaviteľov miest a obcí	14,05
Kvalita ciest a chodníkov	8,78	Starostlivosť o kultúrno-historické pamiatky	13,61

Source: Authors' own processing of the research results based on SPSS output

The significance of the difference between the assessments of the individual areas of quality of life was examined using the Wilcoxon test method, thanks to which we can generalize the result to the entire target group, residents falling under the territories of the selected biosphere reserves from which the selection was made. The result indicates that after statistical generalization we cannot determine a statistically significant difference for all areas, because the p values of these differences are greater than $p = 0.05$. We can determine a statistically significant difference only for the assessment of areas in the case of the Poľana Biosphere Reserve, such as dissatisfaction with the accessibility of the area by train and the quality of roads and sidewalks, or satisfaction with the pharmacy and the preservation of traditions, crafts and folklore. In the case of the Slovak Karst Biosphere Reserve, it is equally satisfaction with the preservation of tradition, crafts and folklore and with the ATM, and vice versa, dissatisfaction with health services and the involvement of residents in public life. In the Eastern Carpathians Biosphere Reserve, it is dissatisfaction with the work of elected representatives, cooperation of actors in the territory, job opportunities and business opportunities, see Appendix 20.

For the purpose of deeper data analysis, we used factor analysis with sample adequacy according to the Kaiser-Meyer-Olkin index - $KMO = 0.802$ and Bartlett's test of sphericity - $Sig. = <.001$. Subsequently, SPSS generated 12 factors using the principal components method, which we generated again using Varimax rotation with Kaiser normalization and narrowed these down to 6 based on the scree plot (Appendix 21). Components with a result of less than 0.5 were discarded due to the quality of the model. The factors can be seen in Table 6.

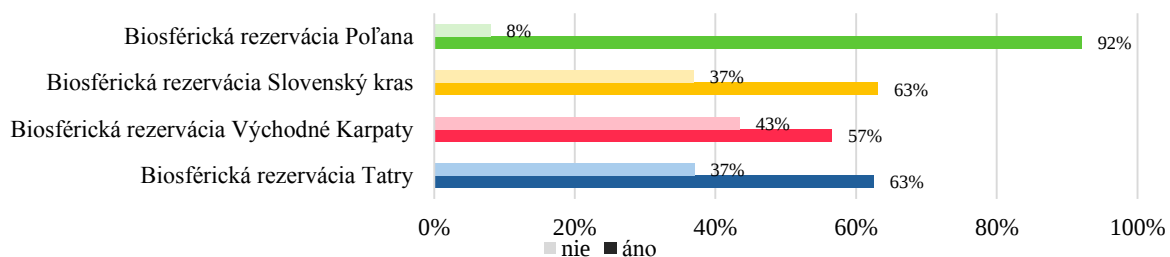
Table 6 Factor analysis of individual areas of quality of life assessed by local residents in biosphere reserves in the Slovak

Faktory	Rotated Component result
Rozvoj kultúry a služieb	
Organizácia tradičných podujatí	0,727
Kultúrne vyžitie	0,695
Organizácia nových podujatí	0,660
Športové možnosti	0,537
Informácie o prírodných a kultúrno-historických hodnotách územia	0,510
Verejné stravovanie	0,503
Nákupné možnosti	0,500

Socio-ekonomický rozvoj		
	Možnosti podnikania	0,705
	Pracovné príležitosti	0,679
	Zdravotnícke služby	0,609
	Kvalita ciest a chodníkov	0,517
	Propagácia regiónu	0,500
Rozvoj participácie a inovácií		
	Súčasný manažment starostlivosti o národný park	0,712
	Využívanie obnoviteľných zdrojov energie	0,587
	Programy a aktivity v oblasti ochrany životného prostredia a prírody	0,584
	Krajinný ráz územia	0,580
	Spolupráca aktérov v území	0,508
Rozvoj infraštruktúry		
	Bankomat	0,702
	Lekáreň	0,686
	Možnosti vzdelávania	0,563
	Kvalita internetového pokrytia	0,545
Rozvoj dostupnosti		
	Dostupnosť územia autobusom	0,785
	Frekvencia spojov medzi obcami a do miest	0,767
	Dostupnosť územia vlakom	0,602
Rozvoj partnerstiev a vzťahov		
	Vzťahy starousadlíkov s novousadlíkmi	0,727
	Medziľudské vzťahy	0,687

Source: own processing of research results according to SPSS output

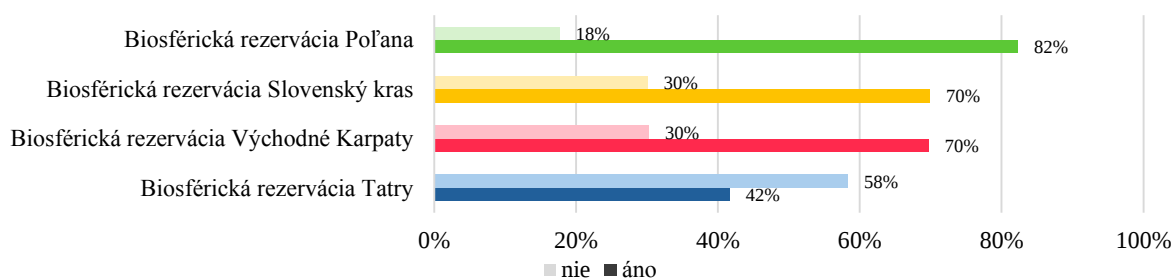
In the analysis of the assessment of the quality of life in biosphere reserves in the Slovak Republic by their residents, we also focused on examining the area of knowledge of selected biosphere reserves in the Slovak Republic by their residents. Based on the yes or no answers to the question that examined whether respondents know that they live in the selected biosphere reserve, we came to the findings that residents have this knowledge mainly in the Poľana Biosphere Reserve (92%), on the contrary, they do not have this knowledge mainly in the Eastern Carpathians Biosphere Reserve (43%), see Graph 2.



Graph 2 Knowledge that local residents live in selected biosphere reserves in the Slovak

Source: own processing of research results

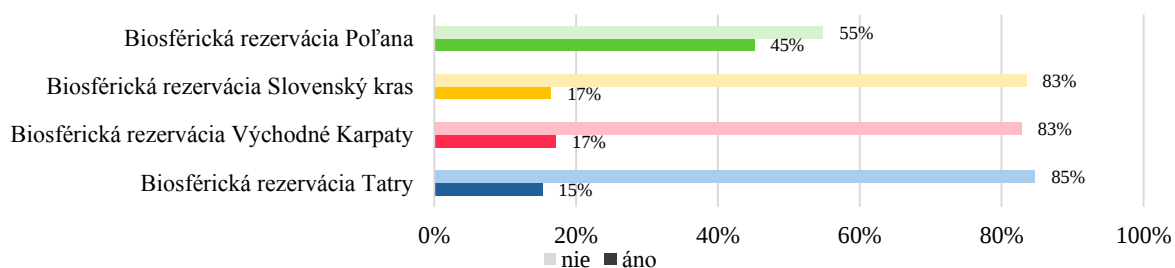
Another question asked whether respondents knew that the selected biosphere reserve was a UNESCO site. Respondents could answer yes or no. In this response, residents in the Poľana Biosphere Reserve (82%) were again the most aware, while those in the Tatra Biosphere Reserve (58%) were the least aware, see Graph 3.



Graph 3 Awareness of local residents of biosphere reserves in the Slovak Republic that the selected biosphere reserve is a UNESCO

Source: own processing of research results

The following question asked about the knowledge of the UNESCO Man and the Biosphere Programme by local residents of biosphere reserves in the Slovak Republic, see Chart 4. Respondents could answer this question yes or no. Based on the results, we found that this programme is known mainly by local residents of the Poľana Biosphere Reserve (45%), while it is not known mainly by local residents of the Tatra Biosphere Reserve (85%). Subsequently, we asked additional questions in the Poľana Biosphere Reserve regarding the knowledge that the Biosphere Reserve is managed by the Coordination Council of the Poľana Biosphere Reserve; 58% of respondents do not have this knowledge and 78% of respondents do not know its statutes. The last finding that we present in this area is that 12 out of 113 respondents would like to become a member of the Coordination Council of the Poľana Biosphere Reserve.



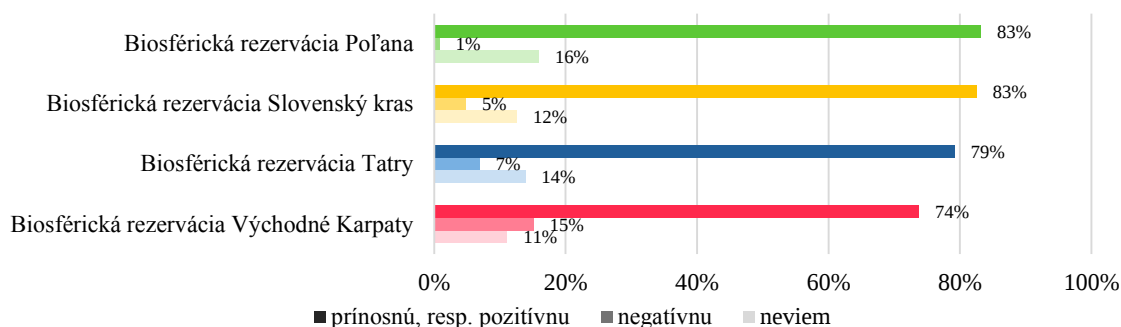
Graph 4 Knowledge of the UNESCO Man and the Biosphere Programme by local residents of biosphere reserves in the Slovak Republic

Source: own processing of research results

In the next part of the research, we asked, as part of an open question, what is the first thing that comes to mind of local residents of biosphere reserves in the territory of the Slovak Republic when they hear the term biosphere reserve. In all biosphere reserves except for the Tatra Biosphere Reserve, it is nature. In the Tatra Biosphere Reserve, it is nature conservation, a protected area (58%). See Appendix 22 for the rest.

The second question in the field of perception of biosphere reserves was how local residents perceive the fact that they live in a selected biosphere reserve. To this question, the respondents could answer beneficial, or positive, negative and I don't know. As we can see on

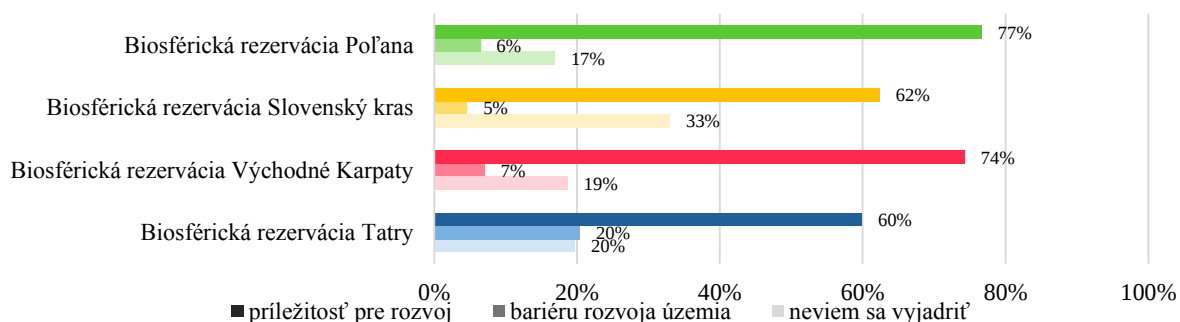
graph 5, the most beneficial, or local residents in the Poľana Biosphere Reserve and the Slovak Karst Biosphere Reserve perceive this fact positively (83% as well).



Graph 5 Perception of the fact that local residents live in a selected biosphere reserve in the Slovak Republic

Source: own processing of research results

Within this area, we also asked about the perception of the existence of PLA/NP in a given area. Respondents could answer opportunity for development, barrier to development of the area and I cannot express an opinion. The existence as an opportunity for development is perceived mainly by local residents in the Poľana Biosphere Reserve (77%), see Graph 6.



Graph 6 Perception of the existence of the entity (PLKO/NP) by local residents living in a selected biosphere reserve in the territory of the Slovak Republic

Source: own processing of research results

We then asked the respondents, using an open question, what they perceive as the greatest advantage of living in the selected biosphere reserve. In the Poľana Biosphere Reserve, it is nature, landscape, scenery (69%), in the Slovak Karst Biosphere Reserve, nature, conservation (66%), in the Eastern Carpathians Biosphere Reserve, peace, quiet (73%), and in the Tatras Biosphere Reserve, nature and mountains (88%). For the rest, see Appendix 23. We also asked the local residents, using an open question, what they perceive as the greatest problem in the development of the selected biosphere reserve. In the Poľana Biosphere Reserve, it is the increased wildlife (bears, wolves) (30%), in the Slovak Karst Biosphere Reserve, unemployment, low salaries (40%), in the Eastern Carpathians Biosphere Reserve,

unemployment, low salaries (47%), and in the Tatras Biosphere Reserve, excessive construction, developers (54%). For others, see Appendix 24.

We continued by identifying development priorities in biosphere reserve areas in the Slovak Republic (Table 7). Respondents could select a maximum of 3 out of 16 options for this question.

Table 7 Priorities for the development of biosphere reserves in the Slovak Republic according to their local residents

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry	Biosférické rezervácie na území SR priemer
Rekonštrukcia ciest a chodníkov	38%	40%	77%	42%	49%
Rekonštrukcia vodovodných a kanalizačných systémov	32%	19%	12%	28%	23%
Ďalšia bytová výstavba s ohľadom na únosnosť územia	19%	7%	19%	18%	16%
Prísnejšia regulácia výstavby v území		5%	1%	58%	21%
Rozvoj zdravotných služieb	26%	39%	27%	33%	31%
Rozvoj kúpeľných služieb		11%	0%	25%	12%
Rozvoj služieb v oblasti vzdelávania a výchovy	14%	8%	6%	19%	12%
Rozvoj sociálnych služieb	14%	9%	11%	11%	11%
Spoločenský a kultúrny život	19%	18%	16%	28%	20%
Budovanie športovísk	15%	11%	14%	22%	16%
Ochrana životného prostredia	36%	16%	6%	49%	27%
Podpora zamestnanosti v poľnohospodárstve	39%	24%	35%	14%	28%
Podpora zamestnanosti v tradičných remeslách charakteristických pre toto územie	33%	28%	39%	15%	29%
Rozvoj cestovného ruchu	25%	18%	13%	17%	18%
Budovanie cyklotrás	21%	18%	10%	47%	24%
Iné	4%	6%	21%	14%	11%

Source: own processing of research results

As we can see in Table 7, within the Poľana Biosphere Reserve, local residents perceive the highest development priority as supporting employment in agriculture (39%), in the Slovak Karst and Eastern Carpathians Biosphere Reserve the priority is the reconstruction of roads and footpaths (40% and 77%), and in the Tatra Biosphere Reserve the priority is stricter regulation of construction in the area (58%). On average, across all biosphere reserves in the Slovak Republic, the highest priority is the reconstruction of roads and footpaths (49%).

In the area of perception of biosphere reserves, we also asked local residents in the last question how they perceive the development of tourism in the area (Table 8). Respondents could mark any number of 5 options.

Table 8 Perception of tourism by local residents of biosphere reserves in the Slovak Republic

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry	Biosférické rezervácie na území SR priemer
Turisti/návštevníci sú pre nás prínosom pre všestranný rozvoj územia	40%	49%	52%	48%	47%
Turisti spôsobujú problémy	6%	2%	1%	15%	6%
Je tu málo turistov	39%	33%	38%	8%	29%

Je tu veľa turistov	7%	13%	8%	26%	14%
Nesledujem to, je mi to jedno	8%	4%	1%	2%	4%

Source: own processing of research results

Based on their answers, we found that local residents in all biosphere reserves in the territory of the Slovak Republic perceive tourism in the territory as a benefit for the all-round development of the territory. Local residents in all biosphere reserves except the Tatra Biosphere Reserve perceive that there are few tourists in their territory. In the Tatra Biosphere Reserve, local residents perceive the opposite situation of a large number of tourists (26%) and related problems (15%).

The last area examined in the analysis of the assessment of the quality of life in biosphere reserves in the Slovak Republic by their residents was the awareness and mobility of residents in selected biosphere reserves. We examined this area through questions that asked about the source from which the residents we interviewed draw information about the selected biosphere reserve (Table 9), where respondents could mark any number of 12 options, and what is their most used method of mobility in the area (Table 10), where respondents could mark 1 of 6 options.

Table 9 Sources of information on biosphere reserves in the Slovak Republic by local residents

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry	Biosférické rezervácie na území SR priemer
Webové stránky miest a obcí	28%	42%	40%	31%	35%
Webová stránka subjektu	27%	34%	33%	26%	30%
Osobné stretnutia so zamestnancami subjektu	12%	2%	5%	15%	8%
Z miestnych médií (noviny, rozhlas, televízia)	18%	20%	25%	26%	22%
Z celoštátnych médií (noviny, rozhlas, televízia)	12%	17%	19%	19%	17%
Z organizovaných akcií subjektu	7%	4%	4%	1%	4%
Sociálne siete miest, obcí	15%	38%	54%	29%	34%
Sociálna sieť subjektu	22%	35%	45%	21%	31%
Úradné tabule v obciach/mestách	7%	4%	2%	10%	6%
Od známych a rodiny	17%	28%	41%	28%	29%
Od starostu a poslancov	2%	2%	9%	6%	5%
Iné	11%	14%	20%	24%	17%

Source: own processing of research results

As we can see in Table 9, within the Poľana Biosphere Reserve, the Slovak Karst Biosphere Reserve and the Tatra Biosphere Reserve, local residents use the websites of towns and municipalities the most, and in the Eastern Carpathians Biosphere Reserve, the social networks of towns and municipalities (54%). The least used sources of information are organized events of the entity, direct information from the mayor and deputies, and official boards in municipalities and cities.

As part of the question of the most used method of mobility in the territory by local residents in biosphere reserves in the Slovak Republic, we have come to the conclusion that this method in all biosphere reserves is mainly passenger transport by private car, see Table 10.

Table 10 The most used mode of mobility in the territory of local residents of biosphere reserves in the Slovak Republic

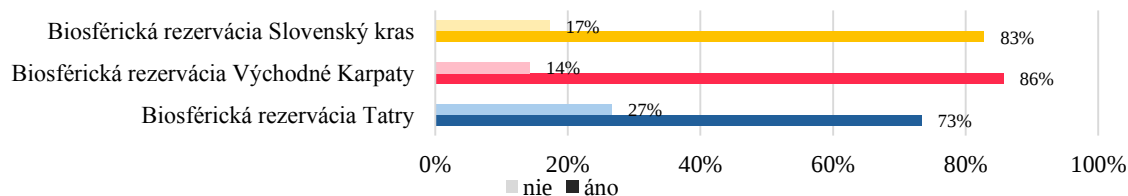
	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry	Biosférické rezervácie na území SR priemer
Autom	61%	54%	49%	56%	55%
Autobusová doprava	13%	29%	13%	6%	15%
Pešo	15%	9%	21%	19%	16%
Železničná doprava	2%	2%	4%	12%	5%
Bicyklom	9%	6%	12%	8%	8%
Iné	0%	1%	2%	0%	1%

Source: own processing of research results

3.4. Analysis of the evaluation of cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders

In another partial research, we collected primary data from stakeholders operating within biosphere reserves in the Slovak Republic using a quantitative interview method, in the form of a questionnaire. The aim of the analysis was to evaluate the cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders. As part of the analysis, we focused on examining the knowledge and perception of selected biosphere reserves, assessing the quality of functioning, cooperation and civic engagement in these areas.

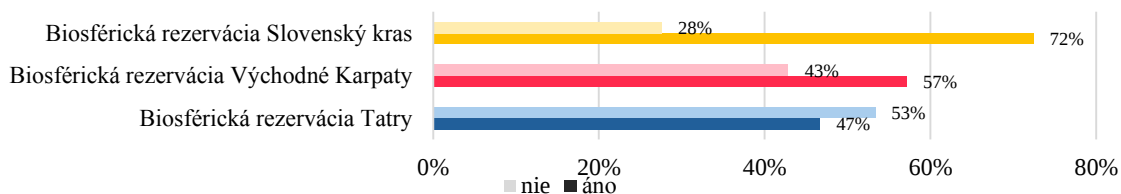
Within the area of knowledge of biosphere reserves, based on yes or no answers, we came to the conclusion that respondents operating in the Eastern Carpathian Biosphere Reserve are most aware of the fact that they operate in a biosphere reserve (86%). As we can see in Chart 7, in all biosphere reserves for which respondents included this question in the questionnaire, a positive answer prevails.



Graph 7 Knowledge about the activities of respondents in a selected biosphere reserve in the Slovak Republic

Source: own processing of research results

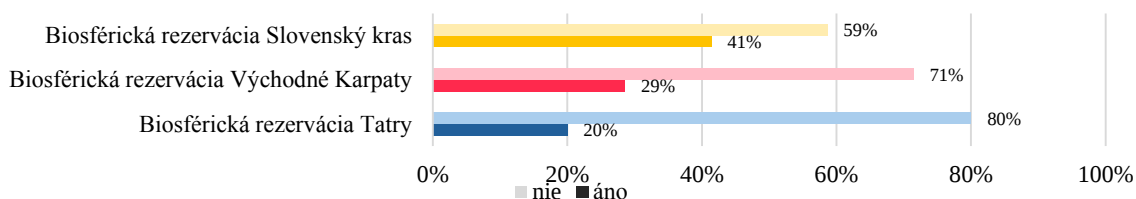
We then asked respondents whether they knew that the selected biosphere reserve in which they operate is a UNESCO site. Respondents could answer yes or no. This knowledge was highest among respondents in the Slovak Karst Biosphere Reserve (72%). As we can see in Graph 8, only in the Tatra Biosphere Reserve did respondents answer more negatively.



Graph 8 Respondents' knowledge that the selected biosphere reserve in the Slovak Republic is a UNESCO site

Source: own processing of research results

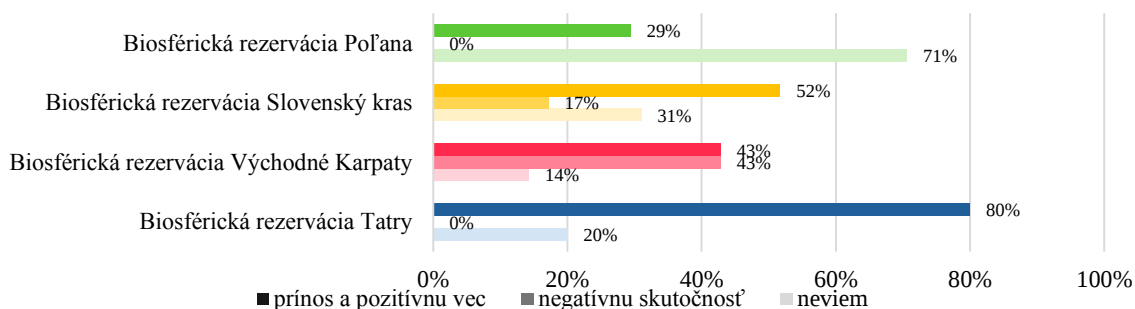
We further found that in all biosphere reserves for which the questionnaire included this question, to which respondents could answer yes or no, a negative answer prevails in knowledge of the UNESCO Man and the Biosphere Programme, most notably in the Tatra Biosphere Reserve (80%), see Graph 9.



Graph 9 Knowledge of the UNESCO Man and the Biosphere Programme by respondents of biosphere reserves in the Slovak Republic

Source: own processing of research results

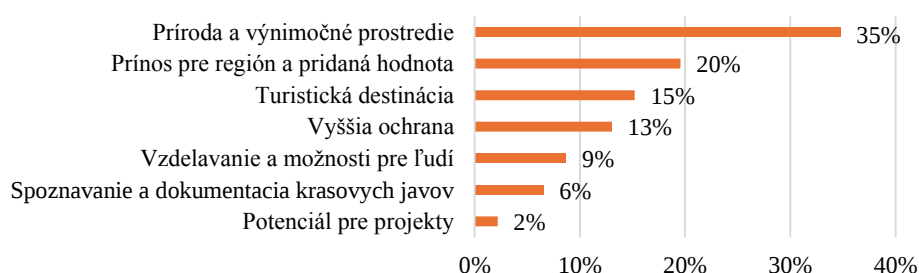
The next area of research was the perception of the biosphere reserve by stakeholders. Based on the answers benefit and positive thing, negative fact and I don't know, we found that the fact that they belong to/operate in the selected biosphere reserve is perceived most positively by respondents operating in the Tatra Biosphere Reserve (80%), most negatively by respondents in the Eastern Carpathians Biosphere Reserve (43%), see Graph 10.



Graph 10 Perception of the fact that respondents operate/belong to biosphere reserves in the Slovak Republic

Source: own processing of research results

With an additional open question, we also asked about the specific benefits of operating in a biosphere reserve, where we came to the findings that the greatest positive of biosphere reserves is nature and the exceptional environment (35%), followed by the benefit for the region and added value (20%) and the tourist destination (15%), see Graph 11. As for the negatives, the following were mainly restrictions, inviolability, insufficient connection of nature protection with human activity, insufficient conditions, complications with building permits and projects that could be beneficial for residents, but are not permitted from a conservation perspective, followed by insufficient support and promotion, or the ability to sell themselves.

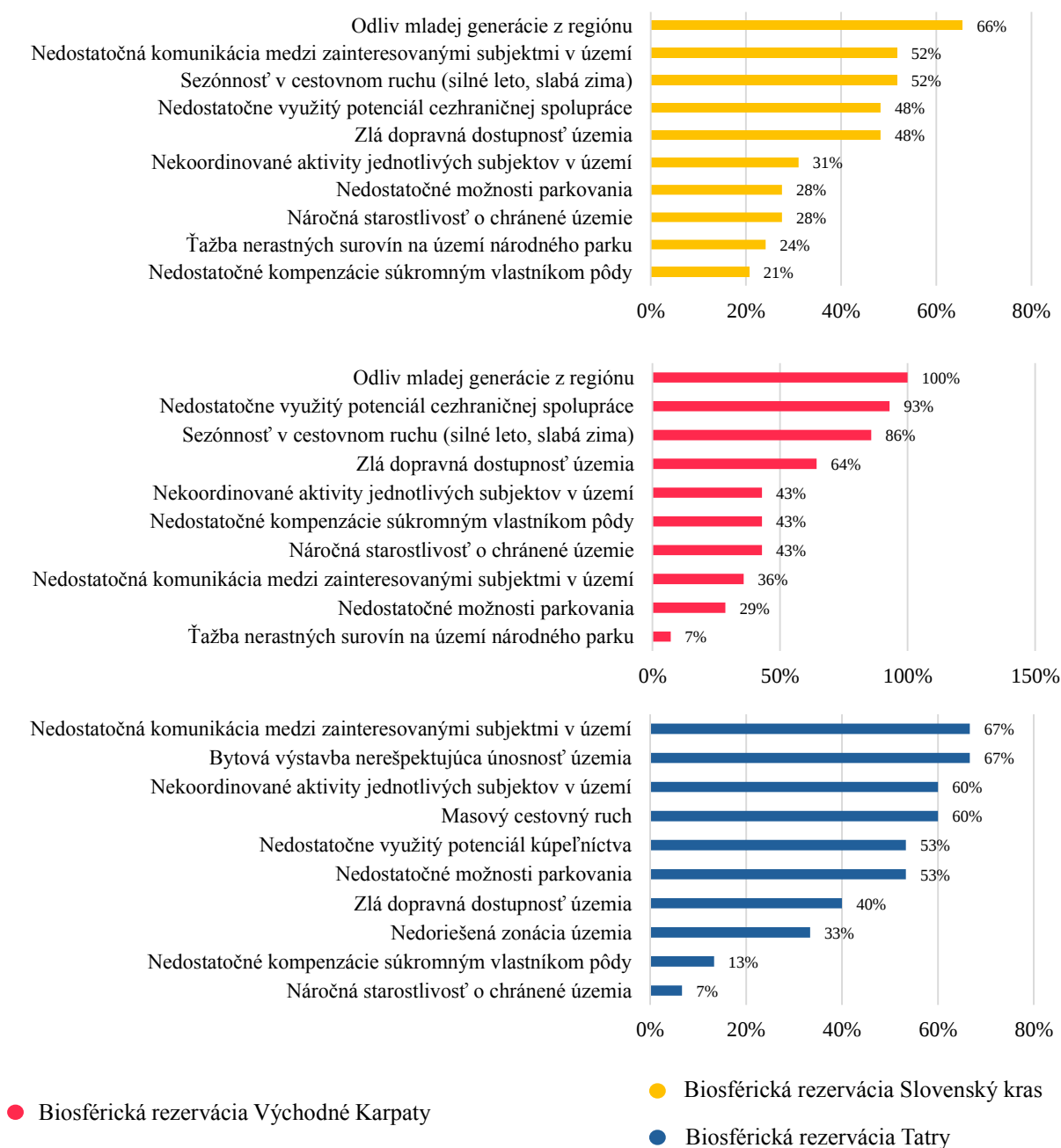


Graph 11 Benefits resulting from the impact/inclusion in biosphere reserves in the territory of the Slovak Republic

Source: own processing of research results

Within this area, we also asked respondents with an open question what first comes to mind when they hear the term biosphere reserve. Within the Slovak Karst Biosphere Reserve, it is mainly the protection of nature, biodiversity and the environment (20%), in the Eastern Carpathians Biosphere Reserve, intact nature (39%), and in the Tatra Biosphere Reserve, the protection of nature, territory and originality (50%), for the rest, see Appendix 25. Subsequently, we asked respondents with an open question what they perceive as the biggest problem in the development of the territory of each biosphere reserve. In the Slovak Karst Biosphere Reserve, these are mainly strict restrictions within the framework of nature protection (18%), in the Eastern Carpathians Biosphere Reserve, disadvantaged opportunities for citizens (14%) in the form of job opportunities, accessibility, infrastructure and services, and in the Tatra Biosphere Reserve, unwillingness to cooperate, reach an agreement, inconsiderateness, individualism (16%), for others, see Appendix 26. With another open question, we were interested in what the respondents perceive as the biggest advantage of working in a biosphere reserve. In the Slovak Karst Biosphere Reserve it is beautiful and preserved nature, the environment (22%), in the Eastern Carpathian Biosphere Reserve nature and environment (29%) and in the Tatra Biosphere Reserve tourism – customers, services, attendance (36%), see Appendix 27 for the rest. In the last question of this area, we asked the

respondents whether they perceive any specific problems that prevent the development of the territory of the selected biosphere reserve in a sustainable way. Respondents could mark any number of 10-11 options. As we can see on graph 12, in the Slovak Karst Biosphere Reserve and the Eastern Carpathian Biosphere Reserve it is the outflow of the young generation from the region (66% and 100% respectively), in the Tatra Biosphere Reserve it is insufficient communication between interested entities in the territory and housing construction that does not respect the carrying capacity of the territory (also 67%).

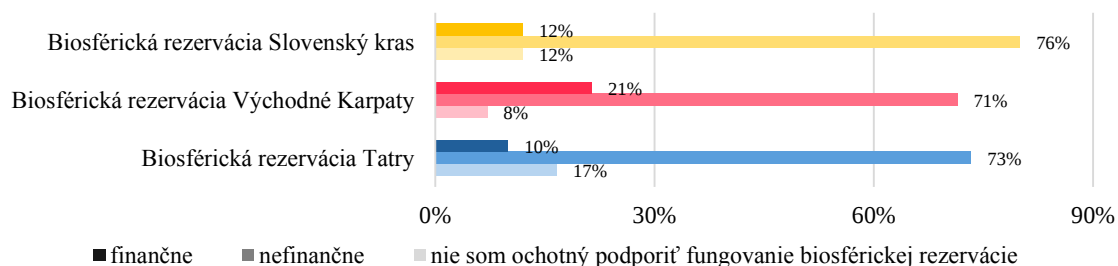


Graph 12 What specific problems do respondents perceive as hindering the sustainable development of the selected biosphere reserve territory?

Source: own processing of research results

The next area in the analysis of cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders is the area of functioning, within which we asked respondents with an open question how, from their perspective, the selected biosphere reserve should function in the future (what needs to be improved, what to continue, etc.). Based on the results, we found that stakeholders in the Poľana Biosphere Reserve consider its functioning as a positive, beneficial, or good thing that should also function in the future, including in the field of tourism. In the Slovak Karst Biosphere Reserve, the most frequent answer was I have no information, I cannot assess, I do not know (24%), followed by increasing opportunities and improving cooperation and communication (16%). In the Eastern Carpathians Biosphere Reserve, the most common answers were more marketing and promotion, balanced nature protection, not extreme, and development of tourism and infrastructure (all 21%). In the Tatra Biosphere Reserve, the most common answer was construction regulation and better spatial planning and marketing, education and branding (also 22%), for the rest, see Appendix 28. Within the Poľana Biosphere Reserve, we also asked what could be improved in the functioning of the Poľana Biosphere Reserve from the respondents' point of view. In this question, we noted among the answers increased promotion, cooperation with citizens, awareness, involvement of state authorities, or bear regulation.

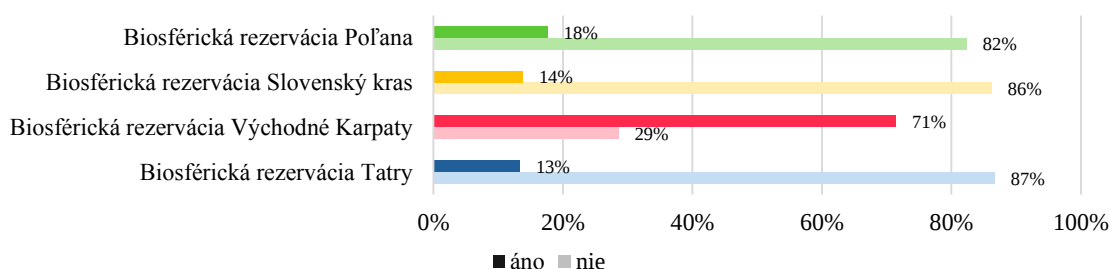
The last question in this area asked about the respondents' willingness to support the functioning of the selected biosphere reserve. Respondents could mark the answer financially, non-financially and I am not willing to support the functioning of the biosphere reserve. As we can see in Chart 13, respondents in all the biosphere reserves surveyed would be willing to support their functioning mainly non-financially, especially through volunteer work and personal involvement, promotion and marketing, cooperation and support of projects, non-financial sponsorship and material assistance in the form of products, spaces, tickets, etc., or by providing land or infrastructure. They would be willing to support the functioning of biosphere reserves financially according to their capabilities, because several people report a lack of financial resources, some say that it depends on the deputies and management. They also argued that it mattered what they invested in, but if the vision of the investment was meaningful, the amount ranged from 5 to 50,000 euros, in one case the amount was arbitrary.



Graph 13 How willing are respondents to support the functioning of the selected biosphere reserve?

Source: own processing of research results

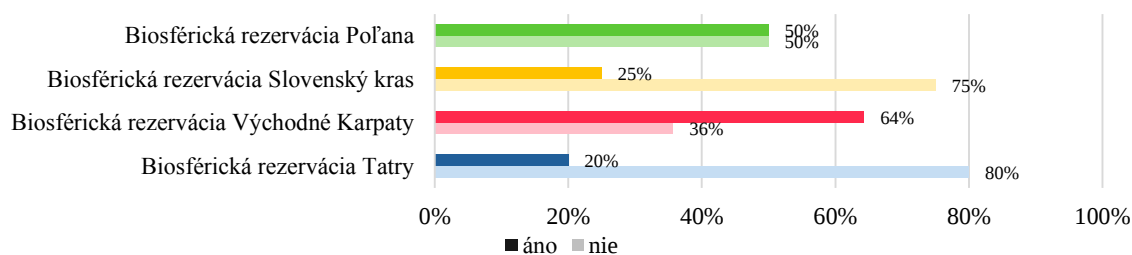
The penultimate area is cooperation in the biosphere reserve, where the first question asked whether respondents cooperate on projects aimed at developing the area with the selected biosphere reserve. Respondents could answer this question yes or no. As we can see in Chart 14, respondents answered positively especially in the Eastern Carpathians Biosphere Reserve (71%), where these are mainly projects in the framework of building cycle paths, biodiversity protection, environmental projects, or teaching. These are projects financed from the Swiss Financial Mechanism, Interreg, or other projects from EU funds.



Graph 14 Respondents' cooperation on projects aimed at developing the area with a selected biosphere reserve

Source: own processing of research results

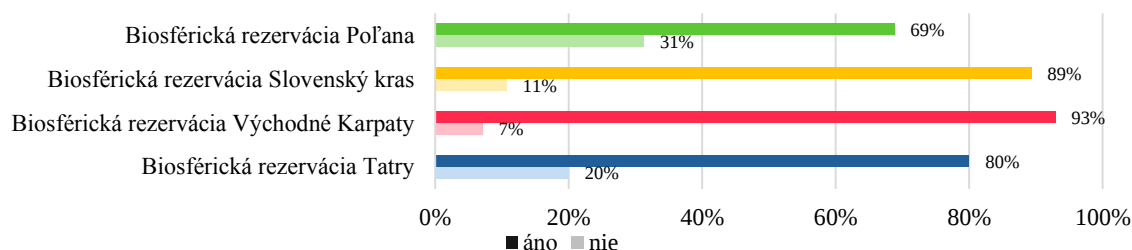
The following question followed on from the previous one, asking whether respondents perceived this cooperation as functioning and beneficial. Respondents could answer yes or no with the option of adding a text answer. In all biosphere reserves except the Poľana Biosphere Reserve, the answer was positive with a value of 90% or more. In the Poľana Biosphere Reserve, a negative answer prevailed (57%), which respondents justified by a lack of understanding on the part of public institutions. In other biosphere reserves, financial reasons were cited, insufficient government support, changes associated with new management, media coverage of cases, disruption of economic activity, or incorrect zoning and restrictions for residents and tourists. The following question asked whether their strategic documents or projects included areas related to cooperation with the selected biosphere reserve. Respondents could answer the question yes or no. As we can see in Graph 15, respondents in the Eastern Carpathians Biosphere Reserve responded most positively (64%).



Graph 15 Inclusion of areas related to cooperation with the selected biosphere reserve in the respondents' strategic documents

Source: own processing of research results

Within this area, we also asked about the interest in cooperating on projects aimed at the preservation and development of the selected biosphere reserve in the future. Respondents could answer yes or no. As we can see in Graph 16, in all biosphere reserves in the Slovak Republic we recorded mainly positive responses, most in the Eastern Carpathians Biosphere Reserve (93%).

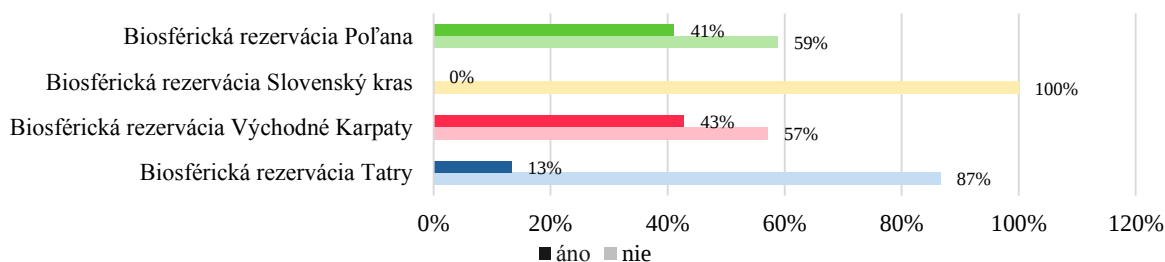


Graph 16 Interest in future cooperation on projects aimed at the preservation and development of the selected biosphere reserve

Source: own processing of research results

Respondents, through an open-ended question, indicated various ways in which they could contribute to the preservation and development of biosphere reserves in the future, e.g. supporting sustainable tourism, promoting and raising public awareness, protecting nature and caring for the territory, education, outreach and working with youth, supporting traditional farming and a sustainable local economy, cooperation, making a significant contribution and participating in management, providing infrastructure, facilities and capacities, or through their own commitment and personal participation.

Another question asked whether respondents were members of the Coordination Council of the Poľana BR, the Council of the Slovak Karst National Park, the Council of the Poloniny National Park or the Council of the Tatra National Park. Respondents could answer yes or no. As we can see in Chart 17, in all biosphere reserves we recorded mainly negative answers, most of all in the Slovak Karst Biosphere Reserve (100%), where none of the respondents is a member of the council.



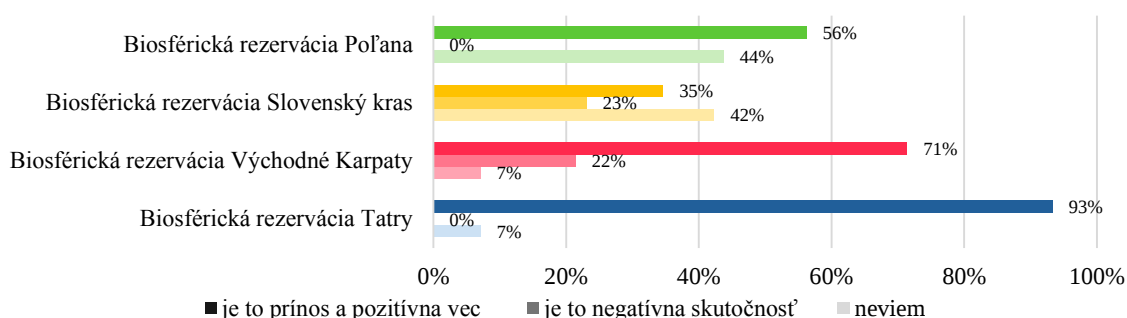
Graph 17 Respondents as members of the boards of entities

Source: own processing of research results

If respondents answered no, we asked them whether they would be interested in becoming a member of the selected council. They could answer yes or no. In all monitored biosphere reserves, the majority of respondents answered no (in the Slovak Karst Biosphere Reserve 57%, in the Eastern Carpathians Biosphere Reserve 63% and in the Tatras Biosphere Reserve 91%). In the Poľana Biosphere Reserve, we did not ask this question, but we asked questions of interest about the Coordination Council of the Poľana BR. Based on the results, we found that 59% of respondents do not know its statutes and 50% of respondents from those who indicated that they were council members stated that their municipality was helped by being a member of the council. The reasons were coordination procedures, finding common solutions and problems, and cooperation in regulating construction. The penultimate open question in the area of cooperation asked with which entities operating in the territory of the selected biosphere reserve the respondents cooperate. The answers to this question in the Poľana Biosphere Reserve were mainly other mayors, other local governments, or the administration of the Poľana PLA and the Civic Association at the Poľana Biosphere Reserve. 71% of respondents perceive this cooperation as functioning and beneficial. In the Slovak Karst Biosphere Reserve, these are mainly nature conservation institutions and state organizations, speleological organizations and professional communities, local governments, landowners, or cooperation with specific locations. 62% of respondents perceive this cooperation as functioning and beneficial. In the Eastern Carpathians Biosphere Reserve, these are mainly local governments, nature conservation organizations, schools and educational institutions, the non-profit sector and civic associations in tourism, local businesses, craftsmen and producers, cultural and other regional institutions, supra-regional and network partnerships. 86% of respondents perceive this cooperation as functioning and beneficial. In the Tatra Biosphere Reserve, these are mainly nature conservation institutions and professional institutions, local governments, organizations in the field of tourism and destination management, cultural, educational and community institutions, entrepreneurs and local producers, the non-profit sector and interest organizations. 87% of respondents perceive this cooperation as functioning and beneficial, one respondent added that it matters who you cooperate with, because local governments often perceive entrepreneurs as competition.

In the last area of analysis of the evaluation of cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders, we were interested in civic engagement. In the first question, we asked respondents how they perceive the interest in the

participation of local citizens in events in the territory of the selected biosphere reserve (Graph 18).



Graph 18 How respondents perceive the interest in local citizens' participation in events in the biosphere reserve area

Source: own processing of research results

Respondents could answer benefit and positive thing, it is a negative fact, I don't know. As we can see in Graph 18, respondents in the Tatra Biosphere Reserve perceive it most beneficially (93%). One respondent stated that we are not yet ready for participatory management, according to him participation is necessary, but with appropriate rules. Another respondent stated that participatory management is beneficial when approached sensibly. According to him, he is skeptical whether it is beneficial. They have mainly negative, but also positive experiences.

Subsequently, we asked the penultimate question what forms of participation of local citizens respondents used in the development of the territory. Respondents could mark one option in the matrix for each participatory management tool. As we can see in Table 11, they use individual interviews with citizens the most, more than 3 times a year (38%). According to the results, we can also say that the level of participation is low. The results of this question for individual biosphere reserves can be seen in Appendix 29.

Table 11 Forms of participation of local citizens in territorial development that respondents have used so far

	Nevyužili sme	1x za rok	2-3x za rok	Viac ako 3x za rok
Dotazník	77%	26%	2%	7%
Anketa	78%	13%	3%	8%
Verejné stretnutia a diskusie	56%	29%	12%	12%
Individuálne rozhovory s občanmi	48%	10%	6%	38%
Elektronické hlasovanie	83%	6%	2%	10%
Iné, uveďte, čo konkrétne	85%	1%	1%	2%

Source: own processing of research results

The last question examined the effectiveness of the forms of participation of local citizens that respondents used in the development of the territory. Respondents could mark one option in the matrix for each instrument of participatory management. As we can see in

Table 12, the most effective are individual interviews with citizens (37%) and public meetings and discussions (32%). The results of this question for individual biosphere reserves can be seen in Appendix 30.

Table 12 The effectiveness of forms of participation of local citizens in the development of the territory that respondents have used so far

	Najúčinnejšie	Skôr účinné	Neviem sa vyjadriť	Skôr neúčinné	Najmenej účinné
Dotazník	8%	17%	62%	7%	5%
Anketa	7%	15%	69%	5%	4%
Verejné stretnutia a diskusie	32%	22%	38%	4%	5%
Individuálne rozhovory s občanmi	37%	19%	37%	6%	1%
Elektronické hlasovanie	7%	9%	70%	10%	4%
Iné, uveďte, čo konkrétne	0%	5%	83%	4%	8%

Source: own processing of research results

3.5. Analysis of the evaluation of the offer of biosphere reserves in the Slovak Republic by tourists

The following partial research was an analysis with the aim of evaluating the offer of biosphere reserves in the territory of the Slovak Republic by its tourists. In the analysis, we focused on examining the area of assessing satisfaction with the quality of individual aspects of their stay in the selected biosphere reserve in the territory of the Slovak Republic, knowledge of the selected biosphere reserve in the territory of the Slovak Republic, perception of the selected biosphere reserve in the territory of the Slovak Republic and their behavior in the selected biosphere reserve in the territory of the Slovak Republic.

As part of the assessment of satisfaction with the quality of individual aspects of the respondents' stay in biosphere reserves in the Slovak Republic, respondents had the opportunity to answer on a scale of -2 (dissatisfied) to +2 (satisfied). The resulting assessment is presented in Table 13 for each biosphere reserve. Since the questionnaires were adapted to the specifics of biosphere reserves, some of the assessments are incomplete. Within the Tatra Biosphere Reserve, we found that the best rated aspect of the offer is the Tatra electric railway (1.68), while the worst rated aspect is the density of the Tatras' development (-0.43), which was also the only aspect of the offer negatively rated. The average assessment of the quality of the offer aspects by respondents in the Tatra Biosphere Reserve is 0.94. In the Eastern Carpathians Biosphere Reserve, the best rated aspect according to respondents is silence, peace (1.96). The lowest-rated aspect is the offer of traditional products (0.06). None of the assessed aspects received a negative rating. The average rating of the quality of the assessed aspects by respondents in the East Carpathians Biosphere Reserve is 1.20. In the Slovak Karst Biosphere Reserve, we found that, according to respondents, the highest-rated aspect is the landscape character of the area (1.77). The worst rated aspect is guide services (-0.33). The

average quality rating of aspects by respondents in the Poľana Biosphere Reserve is 0.76, see Table 13. The graphs of ratings for each biosphere reserve sorted by the rating of aspects of the offer can be seen in Appendix 31, Appendix 32, Appendix 33 and Appendix 34.

Table 13 Assessment of the quality of aspects of the offer by respondents from biosphere reserves

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry
Kvalita služieb	0,31	0,73	0,41	0,99
Gastronómia	0,84	0,9	0,71	1,04
Rozmanitosť služieb	0,36	0,37	0,18	1,1
Krajinný ráz územia	1,77	1,77	1,74	1,31
Sprievodcovské služby	-0,33	1,2	1,72	1,24
Možnosti parkovania	1,08	1,17	1,92	0,29
Dopravná dostupnosť autom	1,58	1,32	1,5	1,57
Dopravná dostupnosť autobusom	0,41	0,7	0,9	0,51
Dopravná dostupnosť vlakom	-0,05	-0,63	0,86	0,88
Starostlivosť o prírodu	0,9	1,34	1,07	0,71
Ponuka tradičných produktov	1,08	0,2	0,06	0,72
Ticho, pokoj	1,61	1,73	1,96	1,08
Ponuka sortimentu v obchodoch	1,07	0,95	0,94	1,14
Údržba turistických chodníkov	1,08	1,06	1,09	1,27
Značenie turistických chodníkov	1	1,17	1,27	1,54
Možnosti stanovania	0,27	0,13	1,17	
Možnosti kempovania	0,05	-0,31	1,2	
Ponuka cyklotrás	0,88	0,4	1,14	
Ponuka kultúrnych/spoločenských podujatí	0,91	0,72	0,91	
Služby pre ľudí s hendikepom	-0,33	-0,8	1,25	
Služby TIC	0,58	1,31	1,45	
Dostupnosť informácií o území	0,96	1,11	1,66	
Možnosti lyžovania	0,33			
Možnosti bežkovania	1,03			
Možnosti pre horolezectvo	1,39			
Ponuka historických a kultúrnych pamiatok	1,1			
SmartApp Slovenský kras		1		
Návšteva kostolov Gotickej cesty		1,28		
Návšteva sprístupnených jaskýň		1,57		
SmartApp NP Poloniny			1,57	
Návšteva území európskeho významu			1,69	
Návšteva pamiatok			1,71	
Ponuka karty Tatry Card				1,11
Ponuka karty Liptov Region Card				1,09
Ponuka karty Orava Card				1
Aquaparky				0,96
Komerčné atrakcie				1,14
Lanovky				1,29
Hustota zástavby Tatier				-0,43

Zmena rázu krajiny				0,05
Tatranská elektrická železnica				1,68
Architektúra stavieb				0,3
Priemer hodnotenia kvality aspektov	0,76	0,82	1,20	0,94

Source: own processing of research results

Based on the responses from our research sample, we used the Friedman test to determine whether respondents evaluated the individual aspects of the quality of the tourism offer in the selected biosphere reserves similarly or differently.

According to Table 14 and Appendix 35, the mean ranks indicate that respondents assessed the individual aspects differently. Among the aspects with which respondents in the Poľana Biosphere Reserve were the most satisfied was the landscape character of the area (20.79), whereas they were the least satisfied with guiding services (8.62). In the Slovak Karst Biosphere Reserve, respondents were also the most satisfied with the landscape character of the area (20.35), while the lowest level of satisfaction was reported for rail transport accessibility (7.60). In the East Carpathians Biosphere Reserve, respondents were the most satisfied with the peace and quiet of the area (20.13), while they were the least satisfied with services for people with disabilities (8.70). In the Tatras Biosphere Reserve, respondents expressed the highest level of satisfaction with road accessibility by car (18.28), whereas they were the least satisfied with the density of development in the Tatras (7.56). The original, unabridged tables containing the mean rankings for all evaluated aspects are presented in Appendix 35.

Table 14 Friedman Test of Respondents' Evaluation of Individual Aspects of the Tourism Offer in Selected Biosphere Reserves in the Slovak Republic

Biosférická rezervácia Poľana		Biosférická rezervácia Slovenský kras	
	Mean Rank		Mean Rank
Krajinný ráz územia Biosférickej rezervácie Poľana	20,79	Krajinný ráz územia Slovenského krasu	20,35
Ticho, pokoj	20,18	Ticho, pokoj	20,32
Dopravná dostupnosť autom	19,47	Starostlivosť o prírodu	17,32
⋮	⋮	⋮	⋮
Možnosti kempovania	9,15	Možnosti kempovania	8,22
Služby pre ľudí s hendikepom	8,67	Služby pre ľudí s hendikepom	7,78
Sprievodcovské služby	8,62	Dopravná dostupnosť vlakom	7,60

Biosférická rezervácia Východné Karpaty		Biosférická rezervácia Tatry	
	Mean Rank		Mean Rank
Ticho, pokoj	20,13	Dopravná dostupnosť Tatier autom	18,28
Možnosti parkovania	19,05	Značenie turistických chodníkov	17,48
Krajinný ráz územia	18,74	Krajinný ráz územia Tatier	16,90
⋮	⋮	⋮	⋮

Možnosti stanovania v národnom parku	8,96	Ponuka karty Liptov Region Card	9,22
Možnosti kempovania	8,80	Ponuka karty Orava Card	9,10
Služby pre ľudí s hendikepom	8,70	Hustota zástavby Tatier	7,56

Source: Authors' own processing based on the SPSS output

The statistical significance of the differences in the evaluations of the individual aspects of the tourism offer was examined using the Wilcoxon test, which enabled the findings to be generalized to the entire target population of tourists visiting the selected biosphere reserves from which the sample was drawn. The results indicate that, after statistical generalization, no statistically significant differences can be identified for all evaluated aspects, as the corresponding p -values exceed the significance level of $p = 0.05$.

Statistically significant differences were identified only for selected aspects. In the Poľana Biosphere Reserve, these included road accessibility by car, the availability of traditional products, the availability of information about the area, and opportunities for rock climbing. In the Slovak Karst Biosphere Reserve, statistically significant differences were found for peace and quiet, nature conservation, service quality, visits to churches along the Gothic Route, camping opportunities, and services for people with disabilities. In the East Carpathians Biosphere Reserve, statistically significant differences were identified for the availability of information about the area and visits to cultural and historical attractions (such as wooden churches, the Pantheon, museums, etc.). Finally, in the Tatras Biosphere Reserve, statistically significant differences were found for the Orava Card offer and the density of development in the Tatras (Appendix 35).

To enable a more in-depth analysis of the data, factor analysis was performed. The adequacy of the sample was assessed using the Kaiser–Meyer–Olkin (KMO) measure, which yielded a value of 0.651, and Bartlett's test of sphericity, which was statistically significant (Sig. < 0.001). Subsequently, SPSS extracted seven factors using the Principal Component Analysis (PCA) method. These factors were then rotated using Varimax rotation with Kaiser normalization. Based on the scree plot (Appendix 36), we decided to retain the seven-factor solution. Variables with factor loadings below 0.50 were excluded to improve the quality of the model. The resulting factors are presented in Table 15.

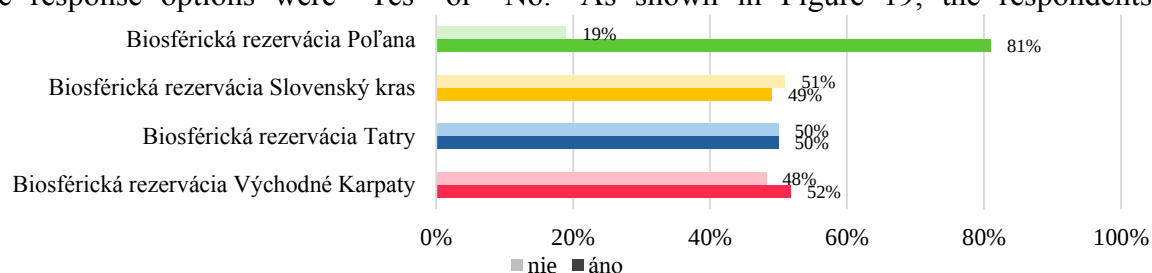
Table 15 Factor Analysis of Individual Dimensions of Quality of Life Evaluated by Respondents in Biosphere Reserves in the Slovak Republic

Faktory	Rotated Component result
Rozvoj kvality a rozmanitosti služieb	
Rozmanitosť služieb	0,860
Gastronómia	0,808
Kvalita služieb	0,763
Ponuka kultúrnych/spoločenských podujatí	0,685
Ponuka sortimentu v obchodoch	0,551

Rozvoj infraštruktúry dostupnosti		
	Možnosti parkovania	0,805
	Dopravná dostupnosť autom	0,605
	Ticho, pokoj	0,521
Rozvoj ubytovacích a podporných služieb		
	Možnosti kempovania	0,921
	Možnosti stanovania	0,915
	Služby pre ľudí s hendikepom	0,589
Rozvoj starostlivosti o turistické chodníky a prírodu		
	Značenie turistických chodníkov	0,823
	Údržba turistických chodníkov	0,780
	Starostlivosť o prírodu	0,688
Rozvoj informačných a sprievodcovských služieb		
	Sprievodcovské služby	0,686
	Ponuka tradičných produktov	-0,595
	Dostupnosť informácií o území	0,522
Rozvoj dostupnosti		
	Dopravná dostupnosť autobusom	0,834
	Dopravná dostupnosť vlakom	0,799
Rozvoj turistickej atraktivity územia		
	Služby TIC	0,759
	Krajinný ráz územia	0,538

Source: Authors' own processing based on the SPSS output

Subsequently, we examined respondents' awareness of the selected biosphere reserve in the Slovak Republic. This section consisted of three questions. The first question asked whether respondents were aware that they were located in the respective biosphere reserve. The response options were "Yes" or "No." As shown in Figure 19, the respondents



predominantly gave a positive response. As shown in Figure 19, respondents gave positive responses most frequently in the Poľana Biosphere Reserve, where 81% reported that they were aware they were located within the reserve. The responses were similar across the remaining biosphere reserves: 49% of respondents in the Slovak Karst Biosphere Reserve answered positively, as did 50% in the Tatras Biosphere Reserve and 50% in the East Carpathians Biosphere Reserve 52%.

Graph 19 Respondents' Awareness of Being in the Selected Biosphere Reserve

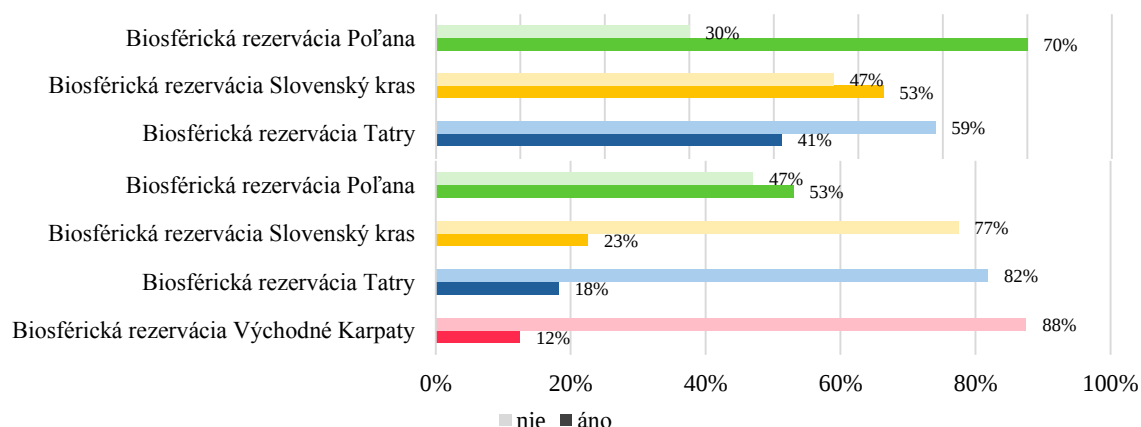
Source: Authors' own processing of the research results

The results of the second question, which examined respondents' awareness that the selected biosphere reserve is a UNESCO-designated site, are presented in Figure 20. Respondents could answer either "Yes" or "No." The highest proportion of positive responses was recorded in the Poľana Biosphere Reserve (70%), followed by the Slovak Karst Biosphere Reserve (53%). In contrast, the highest proportion of negative responses was observed in the

Tatras Biosphere Reserve and the East Carpathians Biosphere Reserve, where the shares were identical 59%.

Graph 20 Respondents' Awareness That the Selected Biosphere Reserve Is a UNESCO Site
Source: Authors' own processing of the research results

The final question examined respondents' awareness of the UNESCO Man and the Biosphere (MAB) Programme. Specifically, respondents were asked whether they had ever



heard of the programme. They could answer either "Yes" or "No." As shown in Figure 21, the highest level of awareness was recorded among respondents in the Poľana Biosphere Reserve, where 53% reported that they had heard of the programme. In contrast, the lowest level of awareness was observed in the East Carpathians Biosphere Reserve, where 88% of respondents indicated that they had not heard of the programme.

Graph 21 Respondents' Awareness of the UNESCO Man and the Biosphere (MAB) Programme
Source: Authors' own processing of the research results

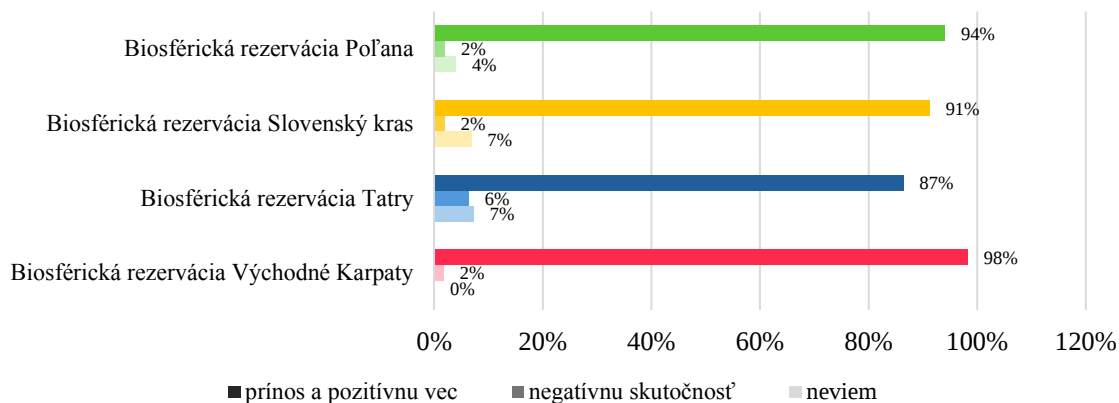
In the next part of the analysis, we examined tourists' perceptions of the biosphere reserves in the Slovak Republic through four questions. The first was an open-ended question, asking respondents what first came to mind when they heard the term "biosphere reserve", followed by the name of the respective biosphere reserve based on the location where they were surveyed.

In the Poľana Biosphere Reserve, the most frequent response was "beautiful, well-preserved nature" (46%). In the Slovak Karst Biosphere Reserve, the most common association was "nature – beautiful, clean, and unspoilt" (44%). The same response was also the most frequently mentioned in the East Carpathians Biosphere Reserve (46%). In the Tatras Biosphere Reserve, respondents most commonly associated the term with "nature and environmental protection" (37%). The remaining responses are presented in Appendix 37.

The second question examined how respondents perceived the fact that they were located within the selected biosphere reserve. Respondents could choose one of three response

options: "a benefit and a positive aspect," "a negative aspect," or "I do not know." As shown in Figure 22, this fact was perceived most positively by respondents in the East Carpathians Biosphere Reserve, where 98% regarded it as a benefit and a positive aspect.

Graph 22 Respondents' Perception of Being Located in a Biosphere Reserve



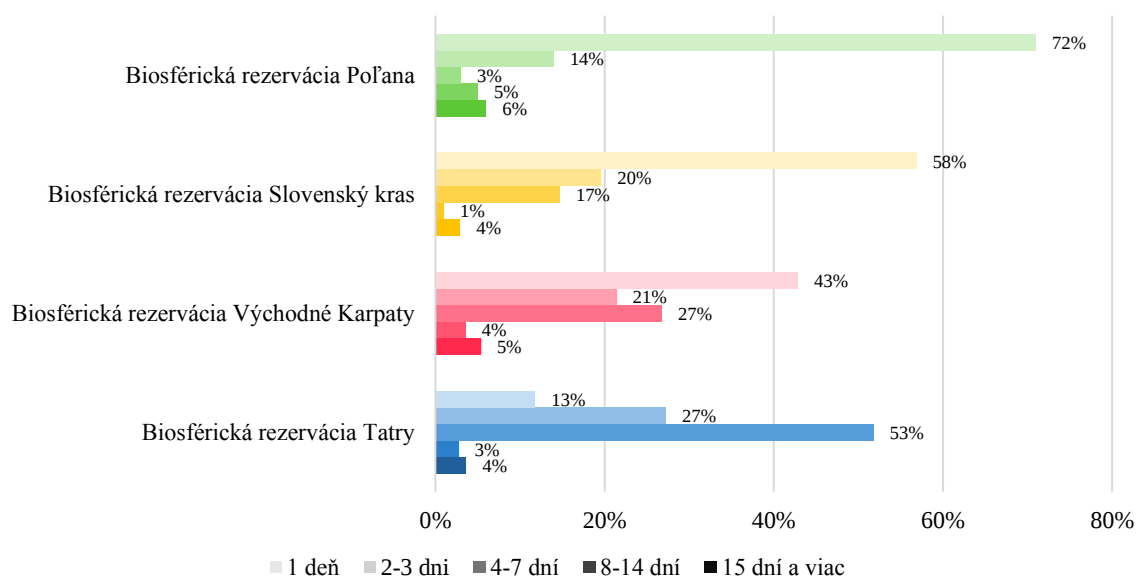
Source: Authors' own processing of the research results

The penultimate question was open-ended and asked respondents what they considered to be the greatest advantage of being located within the selected biosphere reserve. In the Poľana Biosphere Reserve, the most frequently mentioned advantage was nature, beautiful landscapes, and natural values (43%). In the Slovak Karst Biosphere Reserve, respondents most commonly referred to nature – beautiful, clean, and unspoilt (51%). The same response was also the most frequent in the East Carpathians Biosphere Reserve (48%). In the Tatras Biosphere Reserve, respondents most often identified beautiful, well-preserved, and exceptional nature as the greatest advantage (33%). The remaining responses are presented in Appendix 38.

The final open-ended question asked respondents what they perceived as the greatest challenge to the development of the selected biosphere reserve. In the Poľana Biosphere Reserve, the most frequently cited issue was insufficient funding, investment, and government support (25%). The same issue was also identified most frequently in the Slovak Karst Biosphere Reserve (27%). In the East Carpathians Biosphere Reserve, respondents most commonly pointed to limited development, stagnation, and the region being "forgotten" (25%). In the Tatras Biosphere Reserve, the principal concern was mass tourism and overcrowding (24%). The remaining responses are presented in Appendix 39.

The final area of the analysis of tourists' evaluation of the tourism offer in the biosphere reserves of the Slovak Republic focused on tourist behaviour within the selected biosphere reserves. This section consisted of eight questions.

The first question examined the length of respondents' stay in the selected biosphere reserve. Respondents could choose one of the following options: 1 day, 2–3 days, 4–7 days, 8–14 days, or 15 days or more. As shown in Figure 23, the majority of respondents in the Poľana Biosphere Reserve (72%), the Slovak Karst Biosphere Reserve (58%), and the East Carpathians Biosphere Reserve (43%) reported staying for 1 day. The pattern differed only in the Tatras Biosphere Reserve, where the largest proportion of respondents (53%) reported staying for 4–7 days.



Graph 23 Length of Respondents' Stay in the Selected Biosphere Reserve

Source: Authors' own processing of the research results

The second question built on the previous one and was intended only for respondents who indicated that their stay lasted more than one day. These respondents were asked to specify which type of accommodation they had used (Table 16). They could select one of nine accommodation options.

Table 16 Type of Accommodation Used by Respondents Whose Stay Lasted More Than One Day

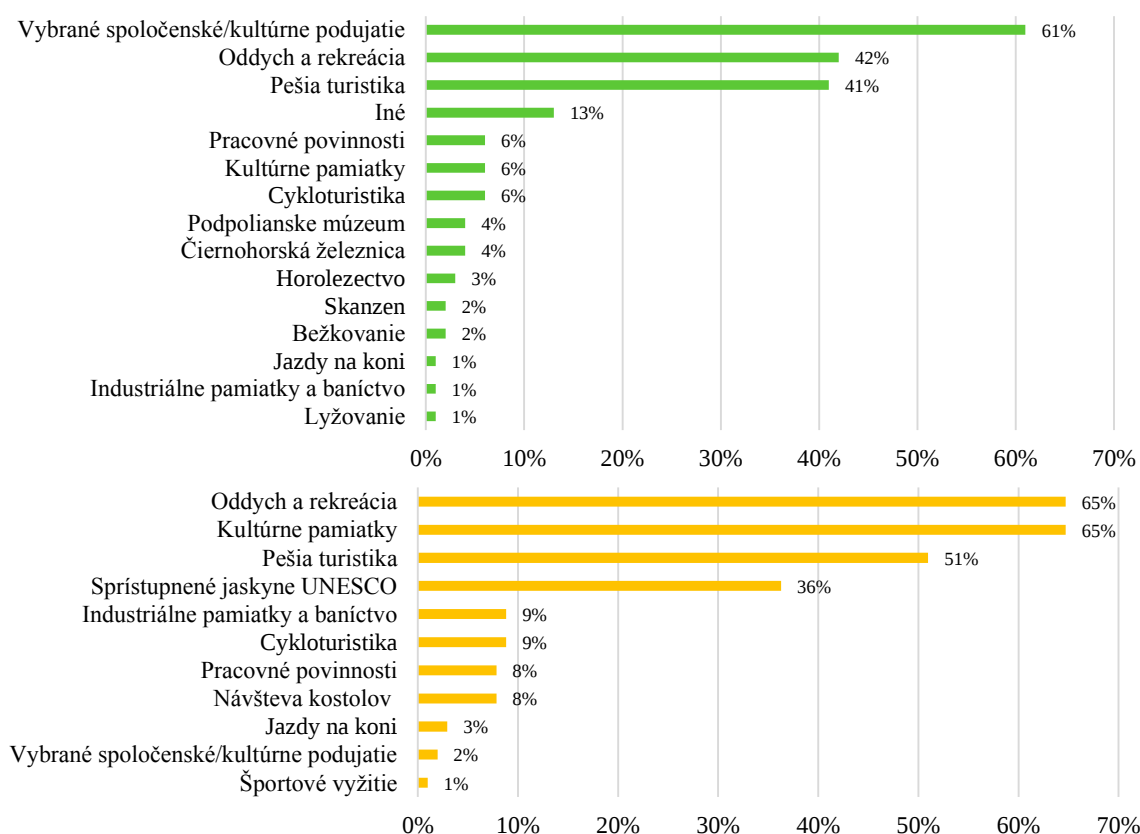
	Hotel	Penzión	Na súkromí	Vo vlastnom dome/apartmáne	V prenajatej chate	Iné	Pri rodine, priateľoch, známych	Stan	V ubytovaní poskytnutom zamestnávateľom
Biosférická rezervácia Poľana	7%	4%	11%	18%	21%	32%	7%	0%	0%
Biosférická rezervácia Slovenský kras	3%	44%	21%	8%	0%	8%	10%	8%	0%
Biosférická rezervácia Východné Karpaty	13%	31%	22%	19%	0%	9%	0%	6%	0%
Biosférická rezervácia Tatry	55%	6%	12%	0%	12%	4%	4%	0%	6%

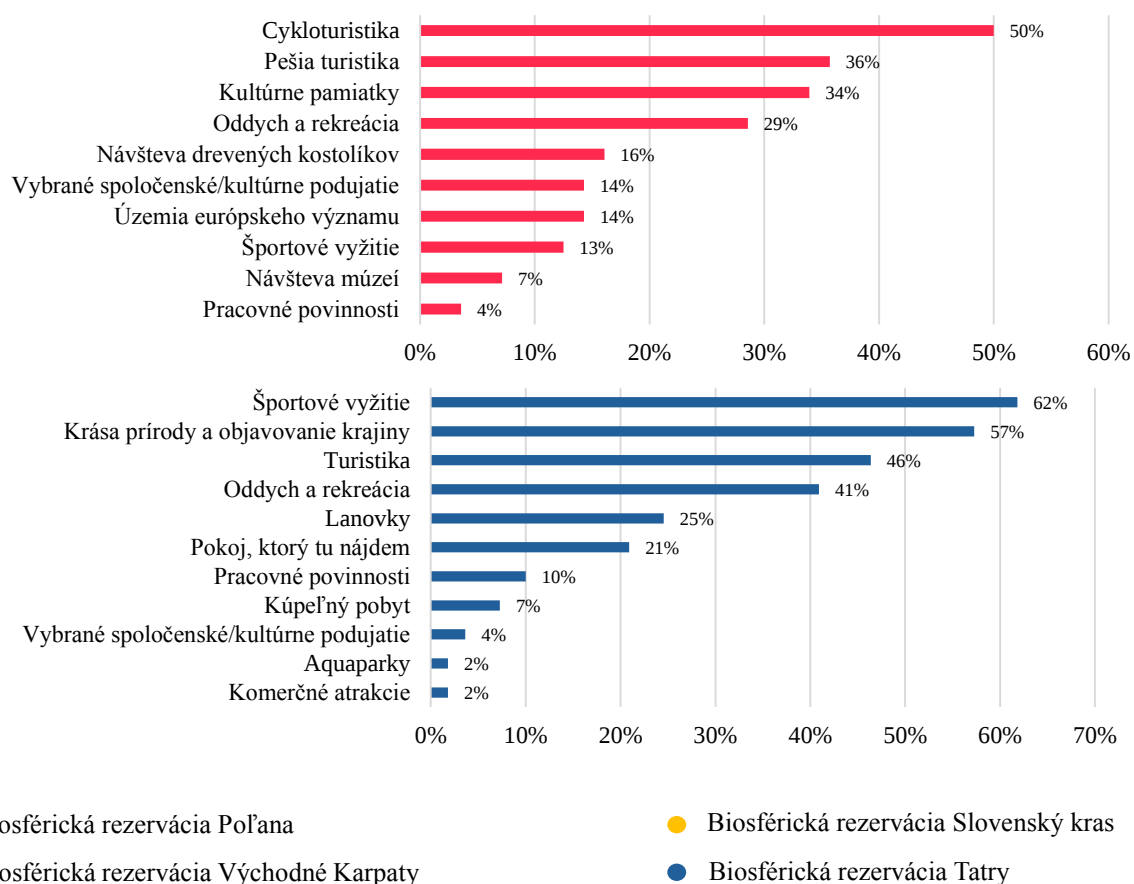
Source: Authors' own processing of the research results

As shown in Table 16, respondents in the Poľana Biosphere Reserve most frequently selected "Other" as their type of accommodation (32%), specifying facilities such as mountain shelters, a rehabilitation centre, and an old hunting lodge. In the Slovak Karst Biosphere Reserve and the East Carpathians Biosphere Reserve, guesthouses were the most commonly used type of accommodation (44% and 31%, respectively). In contrast, respondents in the Tatras Biosphere Reserve most frequently stayed in hotels (55%).

Respondents were subsequently asked about the main reason for visiting the selected biosphere reserve. They could select up to three reasons from a list of 10–15 options. As shown in Figure 24, in the Poľana Biosphere Reserve, the most frequently cited reasons were attending a social or cultural event (61%), rest and recreation (42%), hiking (41%), and other (13%), with respondents specifying reasons such as visiting family, living and working on a farm, wellness stays, or visiting specific localities.

In the Slovak Karst Biosphere Reserve, the main reasons for visiting were rest and recreation and cultural heritage attractions (both 65%), followed by hiking (51%). In the East Carpathians Biosphere Reserve, the principal reasons were cycling (50%), hiking (36%), and visiting cultural heritage attractions (34%). In the Tatras Biosphere Reserve, respondents most frequently reported sports and recreational activities (62%), the beauty of nature and landscape exploration (57%), and hiking (46%) as their main reasons for visiting (see Figure 24).





Graph 24 Respondents' Main Reasons for Visiting the Selected Biosphere Reserve

Source: Authors' own processing of the research results

The next question examined which means of transport respondents used to travel to the selected biosphere reserve. Respondents could select any number of the nine available options. As shown in Table 17, the car was the most commonly used means of transport across all biosphere reserves in the Slovak Republic. In the Tatras Biosphere Reserve, 3% of respondents selected "Other", specifying a taxi or the Tatra Electric Railway as their means of transport.

Tabl 17 Means of Transport Used by Respondents to Travel to the Selected Biosphere Reserve

	Auto	Autobus	Tourbus	Vlak	Motorka	Bicykel	Lietadlo	Pešo	Iné
Biosférická rezervácia Poľana	79%	7%	0%	2%	0%	5%	1%	7%	0%
Biosférická rezervácia Slovenský kras	67%	23%	0%	2%	3%	3%	0%	3%	0%
Biosférická rezervácia Východné Karpaty	77%	4%	0%	10%	7%	0%	2%	0%	0%
Biosférická rezervácia Tatry	87%	2%	0%	5%	0%	0%	1%	3%	3%

Source: Authors' own processing of the research results

The following question built on the previous one and asked respondents which means of transport they used most frequently when travelling within the selected biosphere reserve.

Respondents could select any number of the eight available options. As shown in Table 18, the car was again the most commonly used means of transport across all biosphere reserves.

The "Other" option was selected in the Poľana Biosphere Reserve, where 1% of respondents reported using a tractor. In the Tatras Biosphere Reserve, 5% of respondents selected "Other". Apart from one response indicating cable cars, the remaining respondents specified the Tatra Electric Railway as their means of transport.

Table 18 Means of Transport Most Frequently Used by Respondents Within the Selected Biosphere Reserve

	Auto	Autobus	Tourbus	Vlak	Motorňa	Bicykel	Pešo	Iné
Biosférická rezervácia Poľana	71%	7%	0%	0%	0%	1%	20%	1%
Biosférická rezervácia Slovenský kras	61%	19%	1%	1%	1%	3%	14%	0%
Biosférická rezervácia Východné Karpaty	56%	0%	0%	0%	9%	31%	4%	0%
Biosférická rezervácia Tatry	60%	7%	0%	9%	0%	0%	19%	5%

Source: Authors' own processing of the research results

The next question examined what respondents were willing to do to support nature conservation and preserve the uniqueness of the natural environment. Respondents could select any number of the following options: pay an entrance fee, comply with access restrictions, and participate in volunteer activities. As shown in Table 19, respondents in all biosphere reserves, with the exception of the Slovak Karst Biosphere Reserve, were most willing to pay an entrance fee.

Table 19 Ways in Which Respondents Are Willing to Contribute to Nature Conservation and the Preservation of Its Uniqueness

	Platiť poplatok za vstup	Dodržiavať obmedzenie zákazu vstupu	Zapájať sa do dobrovoľníckych aktivít
Biosférická rezervácia Poľana	75%	64%	38%
Biosférická rezervácia Slovenský kras	55%	74%	39%
Biosférická rezervácia Východné Karpaty	95%	88%	61%
Biosférická rezervácia Tatry	65%	64% (psov)	52% (bicyklov)

Source: Authors' own processing of the research results

As a follow-up to this question, respondents were also asked an open-ended question regarding how much they would be willing to pay. The highest average amount was reported in the Tatras Biosphere Reserve (€6.70), while the lowest average amount was recorded in the Slovak Karst Biosphere Reserve (€4.50). The most frequently stated amount was €5.00 in all biosphere reserves in the Slovak Republic (see Table 20).

Table 20 Entrance Fees for Biosphere Reserves

	Priemerná suma	Minimálna suma	Maximálna suma	Najčastejšie uvádzaná suma
Biosférická rezervácia Poľana	6,3 eur	1 eur	50 eur	5 eur
Biosférická rezervácia Slovenský kras	4,5 eur	0,5 eur	12 eur	5 eur
Biosférická rezervácia Východné Karpaty	5,8 eur	1 eur	20 eur	5 eur

Biosférická rezervácia Tatry	6,7 eur	1 eur	50 eur	5 eur
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Source: Authors' own processing of the research results

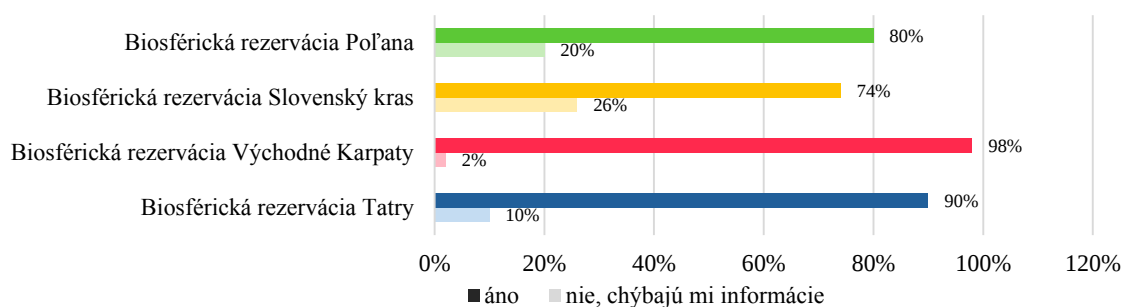
The penultimate question examined the sources from which respondents obtained information when visiting the selected biosphere reserve. Respondents could select any number of the 14 available options. As shown in Table 21, across all biosphere reserves, respondents most frequently obtained information from the official website of the respective management authority (i.e., the national park, protected landscape area, or biosphere reserve), its social media channels, the social media accounts of municipalities and towns within the area, and friends and family.

Table 21 Sources of Information Used by Respondents When Visiting the Selected Biosphere Reserve

	Biosférická rezervácia Poľana	Biosférická rezervácia Slovenský kras	Biosférická rezervácia Východné Karpaty	Biosférická rezervácia Tatry
Z internetovej stránky subjektu	73%	57%	79%	50%
Zo sociálnych sietí subjektu	32%	43%	46%	45%
Zo sociálnych sietí miest a obcí na území subjektu	21%	32%	32%	35%
Z iných internetových stránok	5%	8%	16%	5%
Z informačných centier	2%	8%	5%	8%
Z cestovnej kancelárie	1%	0%	0%	1%
Z osobného stretnutia so zamestnancami subjektu	8%	7%	2%	5%
Z miestnych médií (noviny, rozhlas, televízia)	3%	2%	0%	5%
Z celoštátnych médií (noviny, rozhlas, televízia)	8%	6%	0%	5%
Z organizovaných akcií subjektu	5%	3%	0%	3%
Z hotela, penziónu alebo iného ubytovacieho zariadenia	1%	10%	2%	7%
Od známych, rodiny	24%	25%	27%	41%
Z iných zdrojov	10%	14%	13%	5%
Nevyhľadávam informácie, čerpám z vlastných skúseností	12%	12%	25%	21%

Source: Authors' own processing of the research results

The final question in the section examining respondents' behaviour followed up on the previous question. It investigated whether respondents considered the available information to be sufficient. Respondents could choose one of two response options: "Yes" or "No, I lack information." As shown in Figure 25, respondents in all biosphere reserves generally considered the available information to be sufficient. The highest proportion of positive responses was recorded in the East Carpathians Biosphere Reserve (98%), followed by the Tatras Biosphere Reserve (90%) and the Poľana Biosphere Reserve (80%). Respondents in the Slovak Karst Biosphere Reserve most frequently indicated that they lacked sufficient information, with 26% selecting this response.



Graph 25 Do Respondents Consider the Available Information Sufficient?

Source: Authors' own processing of the research results

3.6. Analysis of Biosphere Reserve Plans in the Slovak Republic

The subsequent partial research involved an analysis of biosphere reserve plans in the Slovak Republic. The aim was to examine the current state of strategic planning in biosphere reserves in the Slovak Republic. Through an analysis of secondary data available on the Internet, we focused on evaluating planning, assessing the quality of life in biosphere reserves, evaluating the potential of their territories, and examining their functioning and cooperation with stakeholders in accordance with the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of UNESCO's Man and the Biosphere Programme.

As part of the evaluation of strategic planning in biosphere reserves in the Slovak Republic, we focused on examining whether the plan was publicly available, the type of planning document, and whether the document was strategic in nature. On a scale from 1 to 4, the publication of plans achieved a score of 3.00. Regarding the type of the main planning document, in three out of four biosphere reserves it is an action plan, while in one case it is a national park management plan. Regarding the strategic nature of the plans, which we assessed based on the content of the available documents using the supplemented and modified framework developed by Grünig and Kühn (2002, 2015), see Figure 1, the score on a scale from 1 to 4 is 3.00. It is important to note that although the documents are published or available in some cases, all of them are outdated, with the exception of one national park management plan in which the biosphere reserve is mentioned only marginally. The Poľana Biosphere Reserve is the only one with a current action plan; however, it has not been published.

Subsequently, we assessed the evaluation of quality of life in these biosphere reserves. We focused on examining whether the biosphere reserves had conducted questionnaire surveys among residents concerning satisfaction with their quality of life, whether their planning documents included assessments of housing and services for local residents, and whether they evaluated their activities and measures through an established evaluation process

using measurable indicators or evaluation reports. On a scale from 1 to 4, the implementation of questionnaire surveys in the biosphere reserves achieved a score of 3.25. The assessment of housing received a score of 2.50, the assessment of services a score of 2.50, and the evaluation of activities and measures a score of 2.25.

As part of this analysis, we also assessed whether the documents of biosphere reserves in the Slovak Republic included an evaluation of their potential. We examined whether the biosphere reserves had conducted such an evaluation, taking into account all components of their potential (natural-geographical potential, socio-demographic potential, socio-economic potential, and innovation potential). On a scale from 1 to 4, this indicator achieved a score of 2.50. We also focused specifically on assessing the existence of an evaluation of socio-economic potential, for which the score among biosphere reserves on the European continent was 2.75.

Finally, we examined the functioning of these biosphere reserves and their cooperation with stakeholders. We assessed this area by evaluating the involvement of local residents, the existence of participatory governance of the biosphere reserve, the existence of a dedicated biosphere reserve governing body, the existence of working groups within the biosphere reserve, the existence of partnerships and sponsorships, and the level of initiative. In assessing initiative, we considered the implementation of projects, activities, programmes, education and networking, as well as active presentation through websites, social media, events, and other activities. On a scale from 1 to 4, resident involvement achieved a score of 2.00, the existence of participatory governance 2.00, the existence of a dedicated governing body 3.25, the existence of working groups 3.25, the existence of partnerships and sponsorships 2.75, and the level of initiative and activity 2.00.

The average scores of the biosphere reserves and the individual areas can be seen in Table 22. On average, the Poľana Biosphere Reserve received the highest rating (1.31), while the Tatry Biosphere Reserve received the lowest rating (3.31). Across all biosphere reserves, the planning area received the worst average rating (3.00), while the functioning and cooperation area received the best average rating (2.54). The overall average rating is 2.70.

Table 22 Average Ratings of Individual Areas and Overall Average Ratings by Biosphere Reserve in the Slovak Republic

	Plánovanie	Hodnotenie kvality života	Hodnotenie potenciálu územia	Fungovanie a spolupráca	Celkové priemerné hodnotenie
Biosférická rezervácia Poľana	1,50	1,25	1,50	1,00	1,31
Biosférická rezervácia Slovenský kras	3,50	2,75	3,00	2,83	3,02
Biosférická rezervácia Východné Karpaty	3,50	3,25	3,00	2,83	3,15
Biosférická rezervácia Tatry	3,50	3,25	3,00	3,50	3,31

Priemerné hodnotenie oblastí	3,00	2,63	2,63	2,54	2,70
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Source: Authors' own processing of the research results

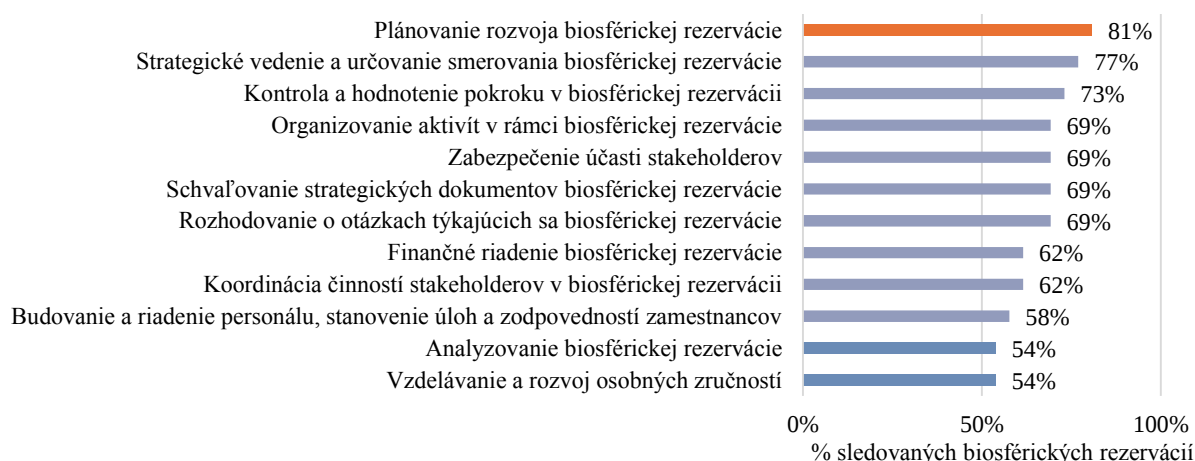
3.7. Analysis of Strategic Development Planning of Biosphere Reserves on the European Continent

The aim of the subsequent partial research was to analyse the strategic development planning of biosphere reserves on the European continent. To achieve this objective, we conducted an analysis of primary and secondary data. The primary data analysis focused on examining the regulation, governance, management, and planning of biosphere reserves on the European continent. For this analysis, we used a survey method in the form of a questionnaire, which involved collecting primary data from representatives of biosphere reserves located on the European continent. The secondary data analysis focused on examining the plans of biosphere reserves on the European continent, specifically the current state of strategic planning in European biosphere reserves, with a view to identifying examples of good practice in assessing quality of life in biosphere reserves, evaluating the potential of their territories, and examining their functioning and cooperation with stakeholders, in accordance with the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of UNESCO's Man and the Biosphere Programme.

3.7.1. Results of the Questionnaire Survey Analysis of Strategic Development Planning of Biosphere Reserves on the European Continent

Within the first area of investigation, we used eight questionnaire questions to examine the legal regulation, governance, and management of biosphere reserves on the European continent. The first question asked whether the biosphere reserve represented by the respondents was incorporated into national or regional legislation in their country. Respondents could select one of two answers: yes or no. We found that, in the majority of cases (65%), the biosphere reserves examined were incorporated into such legislation (in Sweden, Latvia, Germany, France, Spain, Italy, Austria, Portugal, Romania, and North Macedonia). In the subsequent open-ended question, biosphere reserves that were not incorporated into legislation identified their legal form as public-benefit organisations, such as civic associations and foundations established on a charitable basis, or as municipal or local councils and self-government bodies. In the following question, we asked about the competencies of this body in relation to the biosphere reserve. Respondents could select any number of answers from 12 options.

As shown in Figure 26, the most frequently reported competencies are planning the development of the biosphere reserve (81%) and providing strategic leadership and determining the direction of the biosphere reserve (77%). The least frequently reported competencies are education and personal skills development and the analysis of the biosphere reserve (both 54%). In the following open-ended question, we asked about the number of employees responsible exclusively for the biosphere reserve agenda. We found that the most



common number was two employees (36% of cases), while less frequently (9% of cases each), the reported numbers were three, eleven, and one employee. The minimum number of employees exclusively responsible for the biosphere reserve agenda was one employee (in the case of biosphere reserves in France and Slovenia), while the maximum was 120 employees (in the case of a biosphere reserve in Romania). For two biosphere reserves (in Poland and Italy), we recorded a response of zero employees. Respondents explained that the biosphere reserve is part of a national park or a public authority. The subsequent question asked whether a mechanism of cooperative (participatory) governance exists within the biosphere reserve. Respondents could select one of two response options: yes or no. Overall, 88% of respondents answered this question positively.

Graph 26 Competencies of Biosphere Reserve Management Authorities in Europe in Relation to Biosphere Reserve Management

Source: Authors' own processing of the research results

In a question in which respondents could select any number of the 12 available options, we asked which stakeholders biosphere reserves involve through participatory governance. As shown in Figure 27, within participatory governance, biosphere reserves primarily involve scientific institutions, higher education institutions and universities (81%), citizens (77%), and environmental non-governmental organizations (69%). The least frequently involved stakeholders are religious organizations (12%) and the media (27%). On average, the biosphere reserves examined in our study cooperate with 5.9 stakeholder groups, with six

stakeholders being the most common number (20%), followed less frequently by nine and seven stakeholders (12% each). The highest number of stakeholders was 12 (in the case of a biosphere reserve in Romania), while the lowest was zero, recorded in 8% of cases. The penultimate question in the first section of the questionnaire asked whether the cooperative (participatory) governance mechanism in the biosphere reserve was open. Respondents could select one of two response options: yes or no. Overall, 78% of respondents answered yes.



Graph 27 Stakeholders Involved through Participatory Governance of Biosphere Reserves in Europe

Source: Authors' own processing of the research results

The final question focused on the sustainable development of biosphere reserves. In this question, we asked whether biosphere reserves contribute to the specific 17 SDGs of the 2030 Agenda. To analyse these data, we used the Friedman test, the Wilcoxon test, and cluster analysis. Based on the Friedman test, we examined whether the biosphere reserves included in our study contribute equally or differently to the individual Sustainable Development Goals of the 2030 Agenda. We found that their contributions to the SDGs differ. They contribute most strongly to the goal of protecting, restoring and promoting the sustainable use of terrestrial ecosystems, sustainably managing forests, combating desertification, halting and reversing land degradation, and halting biodiversity loss (5.48). For this goal, 84.6% of respondents selected “agree” and 11.5% selected “rather agree”, representing a total of 96.1% of respondents. Biosphere reserves contribute the least to the goal of reducing inequality within and among countries (11.54). The assessment of their contribution to the achievement of the remaining goals is presented in Appendix 40. The significance of differences in the contributions of the biosphere reserves included in our study to the individual SDGs of the 2030 Agenda was examined using the Wilcoxon test, which enabled us to generalize the results. The findings indicate that, after statistical generalization, no statistically significant

difference can be identified for any of the goals, as the p-values for these differences are greater than $p = 0.05$. This is attributable to the low number of respondents in our sample.

The data were also analysed using cluster analysis, through which three clusters were identified based on the dendrogram, as shown in Figure 7.

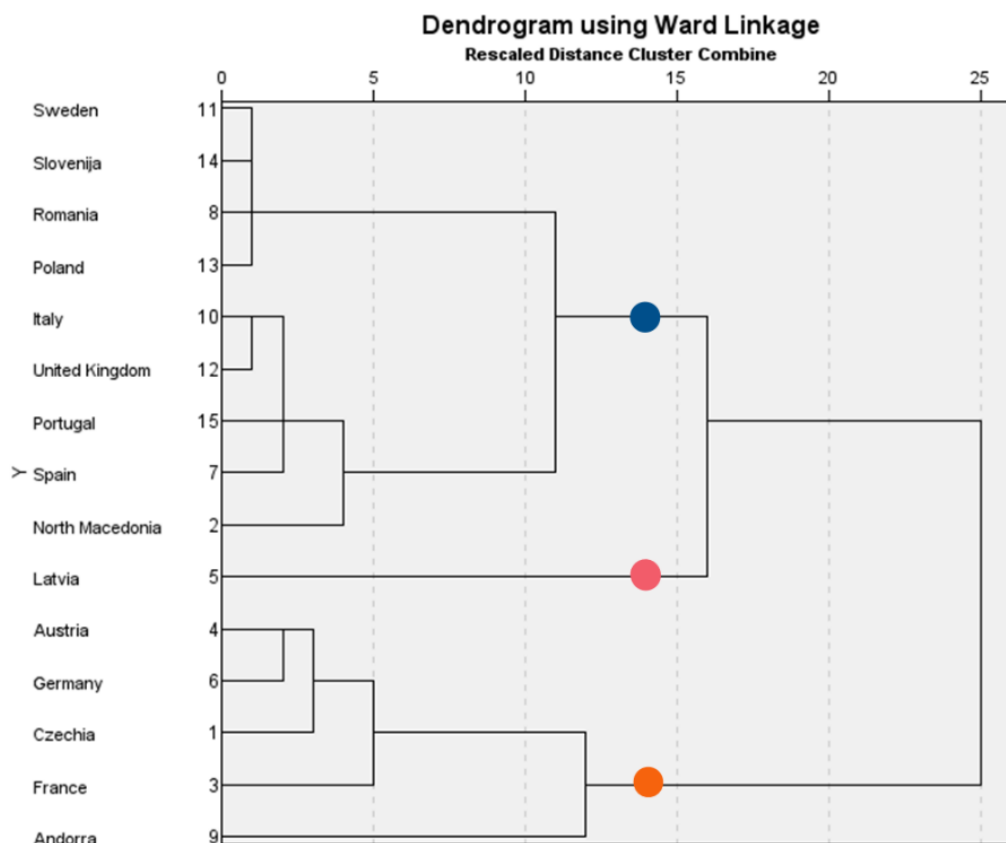


Figure 7 Dendrogram of the Achievement of the Sustainable Development Goals of the 2030 Agenda by Countries in Which the Biosphere Reserves Included in the Research Sample Are Located

Source: SPSS output of the research results

A more in-depth analysis of the data revealed that the first cluster, consisting of biosphere reserves located in Sweden, Slovenia, Romania, Poland, Italy, the United Kingdom, Portugal, Spain, and North Macedonia, contributes the most to the achievement of the SDGs of the 2030 Agenda, with an average score of 1.43 points—0.76 points better than the third cluster, which consists of biosphere reserves located in Austria, Germany, Czechia, France, and Andorra (2.19 points). The second cluster, which includes only Latvia, ranks last in terms of SDG achievement compared with the other two clusters (2.24 points). The clusters are illustrated in Figure 8.

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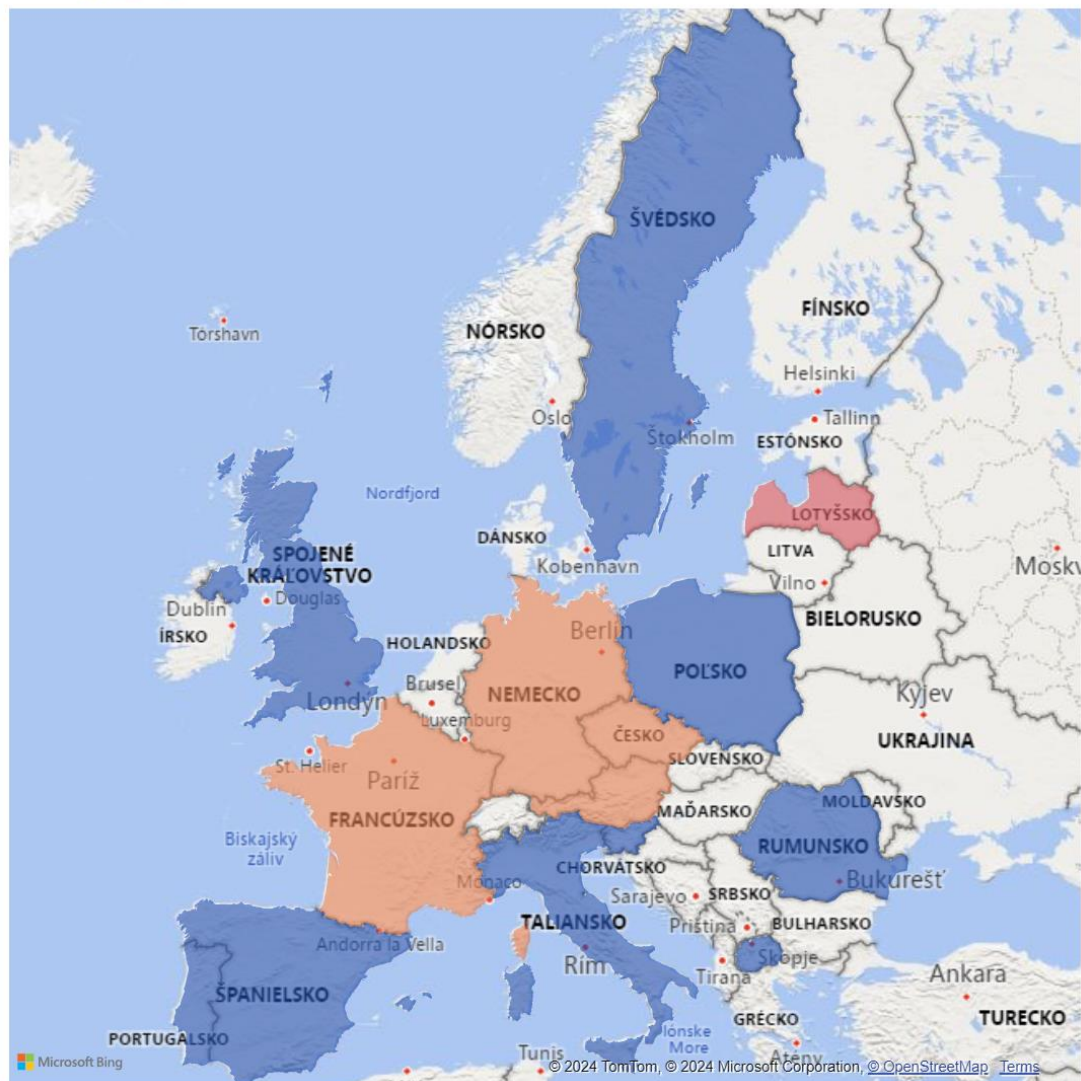


Figure 8 Cluster Analysis Based on the Contribution of Biosphere Reserves in Europe to the SDGs of the 2030 Agenda

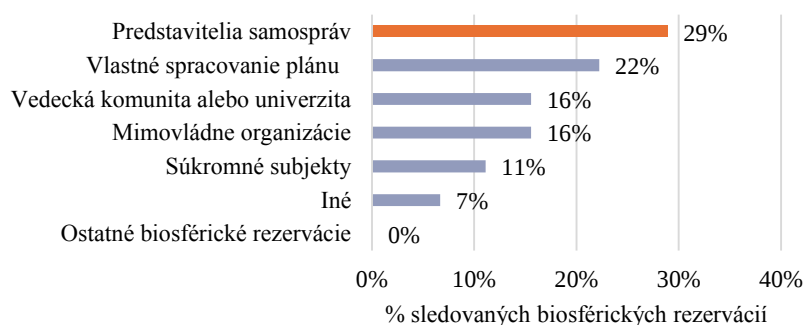
Source: Authors' own processing of the research results in Power BI

In the second part of the questionnaire, 18 questions focused on planning in biosphere reserves. The first question examined whether biosphere reserves have a strategic development plan for their territory. Respondents could select one of two response options: yes or no. A total of 80% of respondents answered yes. Respondents who answered no explained that a strategic development plan was either being prepared or needed to be updated. In the following open-ended question, we asked about the duration of the strategic development plan. Most commonly, these plans have a duration of 10 years (38% of cases), followed by a duration of 5 years in 31% of cases and 6 years in 13% of cases.

In the question concerning the authors of the plan, respondents could select any number of the six available options. The responses showed that the plan is most frequently prepared by representatives of local governments within the territory of the biosphere reserves

(29%), while the biosphere reserves included in our study also frequently prefer to prepare the plan themselves (22%). On average, 2.6 authors are involved in preparing the plan. Most commonly, the plan is prepared by either one author or three authors (29% of cases each), followed by two authors in 18% of cases, four authors in 12% of cases, and five and six authors in 6% of cases each. None of the biosphere reserves indicated that other biosphere reserves were involved as authors of the strategic development plan; see Graph 28.

Graph 28 Authors of the Strategic Development Plan for Biosphere Reserves



Source: Authors' own processing of the research results

Subsequently, we examined which stakeholders biosphere reserves cooperate with during the different phases of strategic planning for biosphere reserve development. In this question, respondents could select any number of strategic planning phases for each stakeholder. As shown in Table 23, the stakeholders with whom the biosphere reserves included in our study cooperate most frequently during the strategic planning phases are scientific institutions and universities (14%), with the highest level of cooperation occurring during the control and monitoring phase (29%). These are followed by government offices and authorities (13%), with the highest level of cooperation during the control and monitoring phase (22%); local governments (13%), with the highest level of cooperation during the control and monitoring phase and communication concerning plan development (17% each); and environmental non-governmental organizations (12%), with cooperation occurring primarily during the strategy implementation phase (15%). In contrast, the lowest levels of stakeholder cooperation are recorded for religious organizations (2%) and the media (3%). As shown in Table 23, during some phases, none of the biosphere reserves included in the study cooperate with these stakeholders.

The phase of strategic planning in which biosphere reserves involve stakeholders to the greatest extent is the dissemination of information about the plan (15%), during which they cooperate primarily with citizens, the media, and scientific institutions and universities (10% each). This is followed by the formulation of objectives and the formulation of the vision

(14% each). Despite the findings presented above, biosphere reserves involve the fewest stakeholders during the control and monitoring phase (6%), in which they do not cooperate at all with religious organizations or non-governmental organizations operating in the fields of education, social affairs, and culture.

Table 23 Cooperation with Specific Stakeholders in the Individual Phases of Strategic Planning

Stakeholderi	Fáza strategického plánovania	Formulovanie vízie	Formulovanie cieľov	Zber údajov - analýza	Implementácia stratégie	Kontrola a monitorovanie	Komunikácia o tvorbe plánu	Spolupráca pri pripomienkovaní plánu	Informovanie o pláne	Niž z uvedeného	Priemerná spolupráca
Občania		9%	11%	8%	5%	5%	8%	8%	10%	4%	8%
Podnikatelia		7%	8%	8%	8%	7%	7%	10%	6%	9%	7%
Cirkev		1%	3%	1%	1%	0%	2%	3%	2%	21%	2%
Miestne samosprávy		12%	13%	13%	13%	17%	17%	13%	8%	4%	13%
MVO v oblasti vzdelávania		7%	6%	7%	8%	0%	8%	8%	9%	10%	7%
MVO v oblasti životného prostredia		11%	12%	13%	15%	12%	12%	13%	9%	6%	12%
MVO v sociálnej oblasti		7%	5%	7%	8%	0%	2%	7%	8%	11%	6%
MVO v oblasti kultúry		7%	7%	5%	8%	0%	7%	6%	8%	11%	6%
Vládne úrady a orgány		14%	14%	12%	14%	22%	12%	13%	9%	6%	13%
Médiá		0%	0%	0%	1%	2%	7%	4%	10%	9%	3%
Vedecké inštitúcie, univerzity		14%	13%	17%	13%	29%	12%	11%	10%	1%	14%
DMO		9%	8%	8%	9%	5%	7%	6%	9%	7%	8%
Priemerná spolupráca		14%	14%	11%	11%	6%	8%	10%	15%	10%	

Source: Authors' own processing of the research results

In the context of this question, we also examined the number of phases in which individual stakeholders are involved. The most frequent values were 0—indicating no involvement in any phase—particularly for religious organizations and non-governmental organizations operating in the social, cultural, and educational fields, and 8—indicating involvement in all phases—particularly for environmental non-governmental organizations, local governments, and government offices and authorities. Based on conditional cell formatting, biosphere reserves generally tend not to involve stakeholders extensively in the phases of strategic planning; see Appendix 41. This finding was also confirmed by the

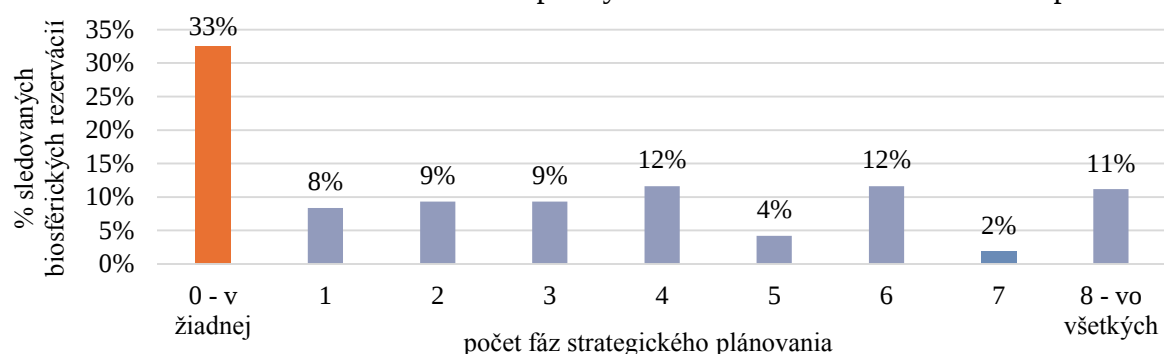
frequency table, which further showed that the biosphere reserves included in our study most frequently involve stakeholders in four and six phases; see Graph 29.

Graph 29 Stakeholder Involvement Expressed by the Number of Phases Based on the Frequency Table

Source: Authors' own processing of the research results

In the following question, we examined which participatory governance tools biosphere reserves use during the individual phases of strategic planning (Table 24). In this question, respondents could select any number of strategic planning phases for each participatory governance tool.

Table 24 Assessment of the Use of Participatory Governance Tools in Individual phases of



strategic planning

Nástroje participatívneho spravovania	Fáza strategického plánovania	Formulovanie vízie	Formulovanie cieľov	Zber údajov - analýza	Implementácia stratégie	Kontrola a monitorovanie	Komunikácia o tvorbe plánu	Spolupráca pri pripomienkovaní plánu	Informovanie o pláne	Niž z uvedeného	Priemerné využitie
Verejné stretnutie a diskusia/počúvanie		20%	17%	9%	3%	4%	7%	12%	9%	2%	11%
Dotazníkový prieskum, ankety medzi stakeholdermi		9%	9%	15%	8%	7%	2%	5%	4%	4%	8%
Účasť stakeholderov v pracovných skupinách		18%	20%	13%	14%	11%	12%	12%	5%	1%	13%
Diskusné fórum so zástupcami skupín stakeholderov		17%	19%	13%	15%	14%	7%	14%	8%	2%	14%
Kontaktovanie stakeholderov prostredníctvom pošty, e-mailu, bulletinov, časopisov atď.		8%	9%	8%	8%	11%	12%	9%	14%	4%	10%
Portál otvorených dát		0%	0%	6%	1%	7%	5%	2%	1%	13%	2%
Vizualizácie/aplikácie otvorených dát		0%	0%	0%	1%	4%	7%	5%	4%	13%	2%
Databázy na zdieľanie informácií v rámci miestneho úradu		2%	1%	8%	3%	7%	0%	0%	1%	13%	2%
Webová stránka biosférickej rezervácie		6%	5%	9%	10%	11%	10%	12%	13%	4%	9%
Online komunikácia prostredníctvom sociálnych sietí		6%	5%	6%	8%	7%	12%	7%	14%	3%	8%
Participatívny rozpočet (online a offline)		0%	1%	0%	3%	0%	0%	0%	3%	15%	1%
Hackathony a súťaže pre stakeholderov		0%	0%	0%	1%	4%	0%	0%	0%	17%	0,4%
Vzdelávacie aktivity zamerané na stakeholderov a zamestnancov BR		8%	7%	8%	14%	11%	14%	7%	11%	5%	10%
Organizovanie podujatí		6%	5%	6%	8%	4%	12%	16%	14%	3%	9%

Priemerné využitie	12%	14%	10%	13%	5%	8%	8%	14%	17%	
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Source: Authors' own processing of the research results

As shown in Table 24, during the phases of strategic planning, the biosphere reserves included in the study most frequently use discussion forums with representatives of stakeholder groups (14%), particularly during the formulation of objectives (19%), and stakeholder participation in working groups (13%), also primarily during the formulation of objectives (20%). The least frequently used tools are hackathons and competitions for stakeholders (0.4%). This tool is not used at all in 75% of the phases. These are followed by participatory budgeting (1%), open data portals, open data visualizations and applications, and databases for sharing information within the local authority (2% each). The strategic planning phases in which biosphere reserves use the highest average number of participatory governance tools are the formulation of objectives (14%), particularly stakeholder participation in working groups (20%) and discussion forums with representatives of stakeholder groups (19%), and the dissemination of information about the plan (14%). These are followed by strategy implementation (13%) and vision formulation (12%). In terms of the average use of participatory governance tools across the different phases of strategic planning, the biosphere reserves included in the study most frequently indicated that they do not cooperate with stakeholders in any phase of strategic planning (17%).

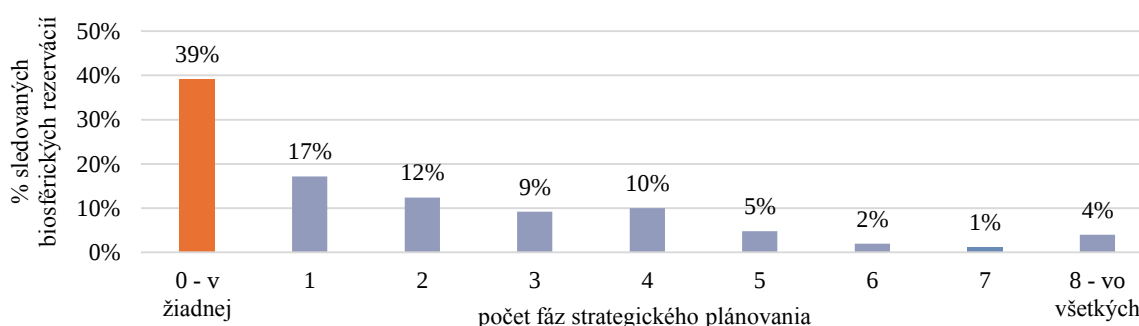
Within this question, we also examined the number of phases in which biosphere reserves use participatory governance tools. The most frequent value was 0—indicating that the tools were not used in any phase—particularly for hackathons and competitions for stakeholders (94%), participatory budgeting (82%), databases for sharing information within the local authority (71%), and open data portals and open data visualizations/applications (67% each). This was followed by one phase, particularly for online communication through social media and questionnaire surveys and stakeholder polls (33% each). Based on conditional cell formatting, the biosphere reserves included in the study tend to use participatory governance tools in a relatively small number of strategic planning phases; see

Appendix 42. This finding was also confirmed by the frequency table, which further showed that biosphere reserves most frequently use participatory governance tools in one or two phases; see Figure 30..

Graph 30 Use of Participatory Governance Tools Expressed by the Number of Phases Based on the Frequency

Source: Authors' own processing of the research results

Through the questionnaire, we also examined which participatory governance tools the biosphere reserves included in our study use in relation to different stakeholders. In this question, respondents could select any number of stakeholders for each participatory governance tool. As shown in Table 25, the biosphere reserves included in the study most frequently use public meetings and discussion/listening sessions (12%), particularly with



stakeholders such as the media (15%) and local governments (14%), as well as stakeholder participation in working groups (12%), particularly with scientific institutions and universities (16%) and local governments (15%). Biosphere reserves make the least use of hackathons and competitions for stakeholders (0.5%), which are not used at all with 67% of the listed stakeholders. These are followed by open data visualizations/applications (2%), participatory budgeting (3%), databases for sharing information within the local authority (3%), and open data portals (4%).

Table 25 Assessment of the Use of Participatory Governance Tools in Relation to Stakeholders

Nástroje participatívneho spravovania	Stakeholderi	Občania	Podnikatelia	Cirkev	Miestne samosprávy	MVO v oblasti vzdelávania	MVO v oblasti životného prostredia	MVO v sociálnej oblasti	MVO v oblasti kultúry	Vládne úrady a orgány	Médiá	Vedecké inštitúcie, univerzity	DMO	Priemerné využitie
Verejné stretnutie a diskusia/počúvanie		13%	13%	8%	14%	12%	13%	11%	11%	12%	15%	13%	10%	12%
Dotazníkový prieskum, ankety medzi stakeholdermi		11%	6%	8%	6%	3%	7%	4%	3%	5%	2%	6%	7%	6%
Účasť stakeholderov v pracovných skupinách		7%	14%	8%	15%	11%	14%	11%	11%	13%	4%	16%	8%	12%

Diskusné fórum so zástupcami skupín stakeholderov	8%	8%	8%	12%	12%	11%	11%	11%	11%	6%	13%	12%	10%
Kontaktovanie stakeholderov prostredníctvom pošty, e-mailu, bulletinov, časopisov atď.	10%	10%	8%	8%	8%	7%	7%	8%	11%	15%	8%	10%	9%
Portál otvorených dát	4%	5%	8%	4%	5%	3%	5%	5%	3%	4%	2%	3%	4%
Vizualizácie/aplikácie otvorených dát	3%	2%	4%	1%	2%	1%	2%	2%	1%	2%	1%	2%	2%
Databázy na zdieľanie informácií v rámci miestneho úradu	2%	1%	0%	4%	3%	2%	4%	3%	4%	4%	5%	5%	3%
Webová stránka biosférickej rezervácie	10%	11%	17%	9%	11%	9%	11%	11%	12%	15%	9%	8%	10%
Online komunikácia prostredníctvom sociálnych sietí	12%	10%	13%	6%	8%	7%	9%	8%	9%	15%	7%	10%	9%
Participatívny rozpočet (online a offline)	1%	2%	0%	4%	3%	3%	4%	3%	4%	2%	2%	2%	3%
Hackathony a súťaže pre stakeholderov	0%	0%	0%	1%	0%	1%	0%	2%	1%	0%	0%	0%	0,5%
Vzdelávacie aktivity zamerané na stakeholderov a zamestnancov BR	9%	7%	4%	6%	9%	10%	9%	10%	7%	6%	8%	10%	8%
Organizovanie podujatí	10%	11%	13%	11%	14%	11%	13%	13%	8%	10%	10%	12%	11%
Priemerné využitie	14%	10%	3%	10%	8%	10%	6%	7%	9%	6%	10%	7%	8%

Source: Authors' own processing of the research results

Regarding cooperation with stakeholders in relation to participatory governance tools, biosphere reserves cooperate most frequently with citizens (14%), particularly through public meetings and discussion/listening sessions (13%) and online communication through social networks (12%). These are followed by businesses, local governments, environmental non-governmental organizations, and scientific institutions and universities (10% each). Biosphere reserves cooperate least frequently with religious organizations (3%), with which they do not cooperate at all through databases for sharing information within the local authority, participatory budgeting, or hackathons and competitions for stakeholders. These are followed by non-governmental organizations in the social sector and the media (6% each), as well as non-governmental organizations in the field of culture and destination marketing organizations (7%).

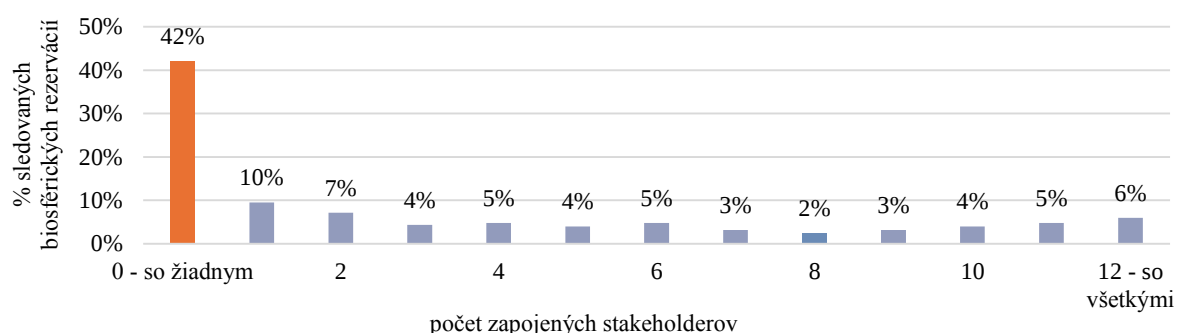
In the context of this question, we also examined the number of stakeholders with whom biosphere reserves use specific participatory governance tools. The most frequent value was 0—indicating that the tools were not used with any stakeholders—particularly for hackathons and competitions for stakeholders (94%), open data visualizations/applications and participatory budgeting (83% each), and open data portals (72%); see Appendix 43. This finding was also confirmed by the frequency table, which further showed that the biosphere

reserves included in our study most frequently use participatory governance tools with one or two stakeholders; see Graph 31.

Graph 31 Use of Participatory Governance Tools Expressed by the Number of Stakeholders Based on the Frequency Table

Source: Authors' own processing of the research results

In the second part of the questionnaire, we also examined the areas covered by the strategic development plans of biosphere reserves. For each area of the biosphere reserve strategic development plan, respondents could select one option on a scale ranging from agree,



rather agree, neither agree nor disagree, rather disagree, to disagree. The Friedman test and the Wilcoxon test were used to analyse these data. Based on the Friedman test, we determined whether the individual areas were represented equally or differently in the strategic development plans of the biosphere reserves included in our study. According to Table 26, based on the mean ranks, we can see that the areas are represented differently in the plans, with the exception of the last two areas. The areas most frequently included in biosphere reserve strategic development plans are the definition of priorities for the biosphere reserve, including from the stakeholders' perspective (5.37), and the analysis of the natural and geographical potential of the area and its strengths, weaknesses, opportunities, and threats (5.42). The least frequently included areas in strategic development plans are the analysis of the area's innovation potential and its strengths, weaknesses, opportunities, and threats (6.67), and the development of a scenario including an analysis of external pressures and internal vulnerabilities (6.67).

Table 26 Areas of the Biosphere Reserve Strategic Development Plan

Oblasť plánu pre strategický rozvoj biosférickej rezervácie	Friedman test priemerné poradie
Definovanie priorít pre biosférickú rezerváciu, a to aj z pohľadu stakeholderov	5,37
Analýza prírodno-geografického potenciálu územia a jeho silných a slabých stránok, príležitostí a ohrození	5,42
Prioritné projekty súvisiace so strednodobými cieľmi	5,50
Analýza sociálno-ekonomického potenciálu územia a jeho silných a slabých stránok, príležitostí a ohrození	5,83
Organizačná/správna štruktúra biosférickej rezervácie	5,85
Strednodobé ciele súvisiace s víziou, doplnené ukazovateľmi a referenčnými hodnotami	5,88

Dlhodobá vízia	6,08
Systém monitorovania realizácie stratégie	6,29
Analýza sociálno-demografického potenciálu územia a jeho silných a slabých stránok, príležitostí a hrozieb	6,44
Vypracovanie scenára vrátane analýzy vonkajších tlakov a vnútorných zraniteľných miest	6,67
Analýza inovačného potenciálu územia a jeho silných a slabých stránok, príležitostí a hrozieb	6,67

Source: Authors' own processing of the research results

The significance of the differences among the areas included in the strategic development plans was examined using the Wilcoxon test, which allows the results to be generalized. The results indicate that, after statistical generalization, no statistically significant difference can be identified for any of the areas because the p-values of these differences are greater than $p = 0.05$. This is due to the low number of respondents in our sample.

As part of the questionnaire, we also used an open-ended question to examine the weaknesses of the current planning process in biosphere reserves; see Graph 32.



Graph 32 Weaknesses of the Current Planning Process in Biosphere Reserves

Source: Authors' own processing of the research results

As shown in Graph 32, the most frequently reported weakness, identified in 23% of cases, is insufficient funding, which results in limited activities. This is followed by difficulties in involving a large number of stakeholders in the strategic planning process, such as a lack of time, the absence of or an inadequate legal status, and low levels of stakeholder interest and motivation, each reported in 10% of cases. Respondents also identified difficulties in obtaining and monitoring data, top-down management, the absence of a bottom-up management system, and outdated and irrelevant plans, each reported in 7% of cases. The other weaknesses of the current planning process in biosphere reserves are presented in Graph 32.

Through the questionnaire, we also examined whether there are other plans related to biosphere reserves. Respondents could select one answer from the options yes or no. We found that 78% of the biosphere reserves included in our study have one or more additional plans. In the subsequent open-ended question, we found that these plans focus primarily on strategic planning for sustainable development (38%), natural and geographical planning (21%), and management (12%). These are followed by cultural planning, climate-related planning, and the development of stakeholder networking (8% each), as well as municipal planning and flood protection planning (3% each). Respondents also reported sectoral plans relating to the biosphere reserve area. The most frequently reported responses were plans for adaptation to sustainable development in accordance with the SDGs, local government plans for achieving the SDGs, and territorial self-government development plans (16% each), as well as NATURA 2000 plans and management plans (9% each). Less frequently reported were forest management plans, forest and grassland plans, regional strategies incorporating energy and climate models, and community plans and community management plans (6% each). Respondents also reported protected area plans, occupational health and safety management plans, nature reserve plans, World Heritage Site plans, leaders' action plans, micro-regional strategies, flood protection plans, and finally plans relating to biodiversity, innovation, education, resource use, health, culture, mobility, energy, and tourism.

In the next questionnaire question, we examined whether biosphere reserves conduct any other internal evaluation of their strategic development in addition to the periodic review. The periodic review is carried out every 10 years in each biosphere reserve. Respondents could select one answer from the options yes or no. We found that in 65% of cases, biosphere reserves do not conduct any evaluation other than the periodic review. Biosphere reserves that answered this question positively stated in the subsequent open-ended question that such evaluations are conducted every two years in 40% of cases, followed by annually, every five years, and every six years in 20% of cases each. One biosphere reserve stated that its Council and scientific advisory body provide analyses and proposals concerning the biosphere reserve, while social mobilization occasionally gives rise to critical discussions.

In one of the final questions, we examined whether management plans and strategies are freely available to the public, to which 83% of respondents answered yes. We then asked whether individual biosphere reserves have a business plan or a fundraising strategy. A total of 67% of respondents answered no. When asked whether a collaborative financing mechanism exists, such as agreed or coordinated funding by multiple stakeholders, 78% of respondents answered no. In the context of marketing, we examined whether there is a specific

communication plan for the biosphere reserve agenda, to which 50% of respondents answered yes. When asked whether the biosphere reserve has implemented a unified logo and visual brand identity in its marketing, 89% of respondents answered yes.

3.7.2. Analysis of Biosphere Reserve Plans on the European Continent

First, we present the mean scores for all the areas examined, together with the overall mean scores of biosphere reserves on the European continent by country; see Table 27. On average, Andorra and the Netherlands achieved the highest scores (1.29 each), followed by Austria (1.34), Germany (1.55), and Norway (1.64). The lowest scores were recorded for Montenegro (3.64), Poland (3.63), Latvia (3.50), Sweden (3.33), and Greece (3.29). The same table also presents the mean scores for the individual areas. Regarding specific biosphere reserves on the European continent, the highest scores were achieved by Unteres Murtal / Lower Mura Valley in Austria, Berchtesgadener Land in Germany, Bliesgau in Germany, and Rhön in Germany (1.00 each), followed by Sierra Nevada in Spain (1.04). The lowest scores were recorded for Voxnadalen in Sweden, Slowinski in Poland, and Miramare in Italy (3.71 each), followed by West Polesie in Poland (3.69) and East Carpathians, also in Poland (3.67). The complete ranking of all 205 biosphere reserves on the European continent, together with the mean scores for all four areas and the overall mean score for each biosphere reserve, is presented in Appendix 44. According to the analysis of the plans of biosphere reserves in the Slovak Republic, their overall mean score is 2.70. Based on this score, Slovakia ranked 23rd out of 35 countries in Table 27. The mean scores of individual biosphere reserves in the Slovak Republic (Table 22) can be compared with those of other biosphere reserves on the European continent in Appendix 44.

Table 27 Mean Scores for Individual Areas and Overall Mean Scores by Country Based on the Analysis of Biosphere Reserve Plans on the European Continent

	Plánovanie	Hodnotenie kvality života	Hodnotenie potenciálu územia	Fungovanie a spolupráca	Celkové priemerné hodnotenie
Andorra	1,50	1,50	1,00	1,17	1,29
Holandsko	1,50	1,50	1,50	1,00	1,29
Rakúsko	1,38	1,63	1,50	1,08	1,34
Nemecko	1,85	1,86	1,67	1,19	1,55
Nórsko	1,00	2,75	1,00	1,33	1,64
Švajčiarsko	2,00	2,75	1,50	1,00	1,71
Dánsko	1,50	2,25	3,00	1,50	1,93
Luxembursko	3,50	3,00	1,00	1,00	1,93
Rumunsko	1,25	2,13	2,00	2,25	2,04
Fínsko	2,25	2,63	2,00	1,67	2,07
Severné Macedónsko	1,50	3,00	2,00	1,67	2,07
Francúzsko	2,11	3,02	1,81	1,58	2,10
Albánsko	2,50	2,75	3,00	1,33	2,14

Taliansko	2,06	2,78	1,95	1,83	2,15
Chorvátsko	2,75	2,88	1,75	1,75	2,21
Slovinsko	2,50	2,75	1,88	1,92	2,23
Španielsko	1,53	2,49	2,16	2,36	2,25
Portugalsko	2,02	2,40	2,00	2,35	2,27
Estónsko	2,00	3,25	1,50	2,00	2,29
Spojené kráľovstvo Veľkej Británie a Severného Írska	2,08	3,14	2,86	1,83	2,39
Bulharsko	2,54	2,50	2,38	2,33	2,42
Maďarsko	1,75	3,75	3,00	2,17	2,68
Litva	1,50	3,50	3,50	2,50	2,79
Česká republika	3,08	2,83	2,42	2,86	2,82
Írsko	2,25	3,63	3,50	2,33	2,86
Moldavsko	4,00	3,25	2,00	2,83	2,92
Bielorusko	3,25	3,67	2,83	2,72	3,08
Ukrajina	3,31	3,53	2,75	2,85	3,10
Srbsko	4,00	3,50	2,50	3,08	3,25
Grécko	3,17	3,75	3,33	3,00	3,29
Švédsko	3,21	3,71	3,00	3,21	3,33
Lotyšsko	3,50	4,00	3,50	3,17	3,50
Poľsko	3,39	3,80	3,45	3,67	3,63
Čierna Hora	3,50	4,00	3,50	3,50	3,64
Priemerné hodnotenie	2,39	2,94	2,32	2,12	2,44

Source: Authors' own processing of the research results

We tested the mean values by country using cluster analysis, in which four clusters were identified through a dendrogram; see Appendix 45. Based on the dendrogram, we used Power BI to project these clusters onto a map, showing which countries belong to each cluster. As shown in Figure 9, the biosphere reserves with the highest average ratings on the European continent are located in the countries shown in blue, those with moderately higher ratings in the countries shown in red, those with moderately lower ratings in the countries shown in orange, and those with the lowest ratings in the countries shown in yellow.

5 ročný plán BR	0,49%
1 ročný plán BR s 1 ročným report BR	0,49%
Stratégia/strategický plán BR	1,95%
Stratégia udržateľného rozvoja BR	1,46%
Čiastková stratégia BR	0,49%
Komunikačná stratégia BR	0,49%
Manažmentová stratégia BR	0,49%
Vývojový/koncepčný plán BR	0,49%
Rámcový koncept/koncepcia BR	4,88%
Program a smerovanie BR	0,49%
Poslanie BR	0,49%
Periodické hodnotenie BR	1,46%
Nominačný dokument BR	1,95%
Iné dokumenty BR	10,24%
Akčný plán národného parku (NP)	0,24%
Plán NP	0,73%
Plán ochrany NP	3,41%
Manažmentový plán NP	2,20%
Plán riadenia NP	3,32%
Stratégia NP/ stratégia regionálneho rozvoja NP	0,73%
Charta NP/prírodného parku (PP)/prírodného regionálneho parku (PRP)	2,20%
Plán riadenia prírodných zdrojov PP	1,22%
Plán riadenia PP	0,49%
Plán chránenej krajiny (CHKO)	2,44%
Plán územného rozvoja	0,98%
Manažmentový plán územia	0,49%
Program ochrany a rozvoja územia	0,49%
Krajinný rámcový plán	0,24%
Nie je žiadny	10,73%

Source: Authors' own processing of the research results

Regarding the strategic nature of the plans, which we assessed based on the content of the individual documents using the supplemented and modified framework of Grünig and Kühn (2002, 2015), see Figure 1, the resulting value on a scale from 1 to 4 was 2.23. We calculated the mean of these values and subsequently tested the data for individual countries using cluster analysis, in which three clusters were identified through a dendrogram; see Appendix 46. Based on the dendrogram, we generated a cluster chart; see Appendix 47. Subsequently, using Power BI, we projected these clusters onto a map showing which countries belong to each cluster. As shown in Figure 10, the countries shown in blue achieved the highest ratings for biosphere reserve planning, those shown in red achieved medium ratings, and those shown in orange achieved the lowest ratings.

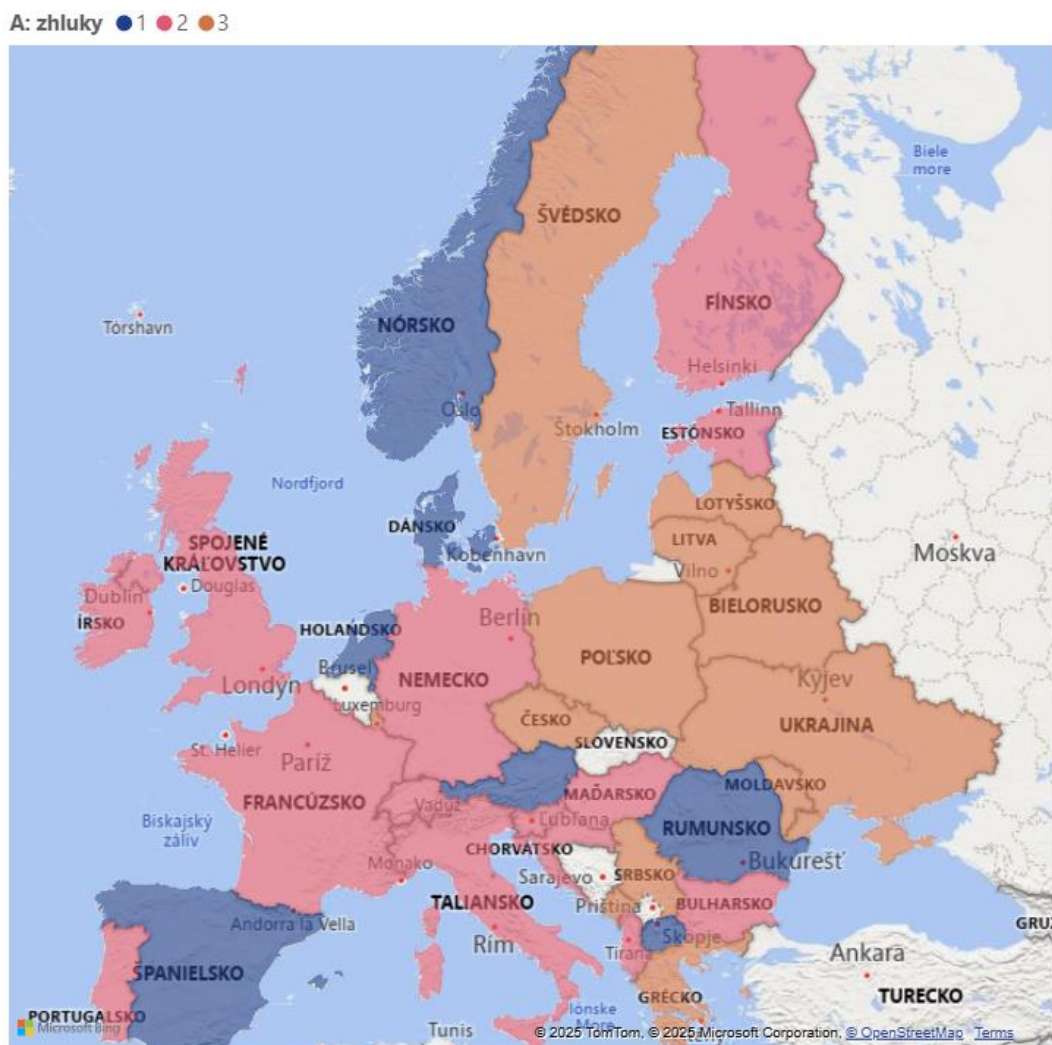


Figure 10 Map Based on the Average Assessment of the State of Planning from the Analysis of Biosphere Reserve Plans on the European Continent

Source: Authors' own processing of the research results in Power BI

As part of the assessment of quality of life in biosphere reserves on the European continent, we examined whether biosphere reserves had conducted questionnaire surveys among residents focusing on satisfaction with quality of life, whether biosphere reserves included assessments of housing and services for local residents in their planning documents, and whether they evaluated their activities through an established evaluation process using measurable indicators or evaluation reports. On a scale from 1 to 4, the implementation of questionnaire surveys in biosphere reserves received a score of 3.21. The assessment of housing received a score of 2.92, the assessment of services a score of 2.81, and the evaluation of activities a score of 2.26. We calculated the mean of these values and subsequently tested the data for individual countries using cluster analysis, in which three clusters were identified through a dendrogram; see Appendix 48. Based on the dendrogram, we generated a cluster chart; see Appendix 49. Subsequently, using Power BI, we projected these clusters onto a map

showing which countries belong to each cluster. As shown in Figure 11, the countries shown in blue achieved the highest ratings for the state of quality of life in biosphere reserves, those shown in red achieved medium ratings, and those shown in orange achieved the lowest ratings.

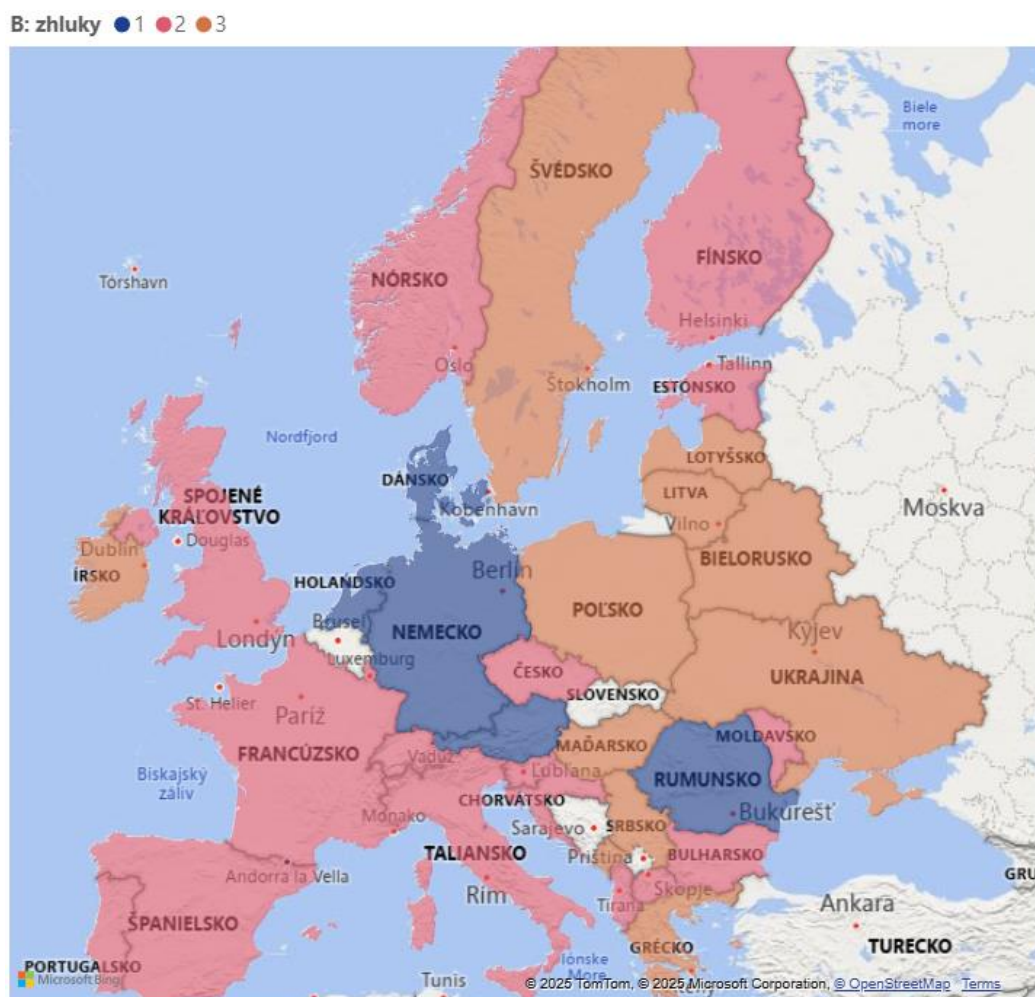


Figure 11 Map Based on the Average Assessment of Quality of Life from the Analysis of Biosphere Reserve Plans on the European Continent
Source: Authors' own processing of the research results in Power BI

As part of this analysis, we also assessed whether the documents of biosphere reserves on the European continent included an evaluation of the potential of their territories. We examined whether such an evaluation existed, taking into account all components of territorial potential: natural-geographical potential, socio-demographic potential, socio-economic potential, and innovation potential. On a scale from 1 to 4, this indicator received a score of 2.07. We also focused specifically on the assessment of socio-economic potential, for which biosphere reserves on the European continent received a score of 2.45. We calculated the mean of these values and subsequently tested the data for individual countries using cluster analysis, in which four clusters were identified through a dendrogram; see Appendix 50. Based on the dendrogram, we generated a cluster chart; see Appendix 51. Subsequently, using Power BI,

we projected these clusters onto a map showing which countries belong to each cluster. As shown in Figure 12, the countries shown in blue achieved the highest ratings for the existence of potential assessments in biosphere reserves on the European continent, those shown in red achieved moderately higher ratings, those shown in orange achieved moderately lower ratings, and those shown in yellow achieved the lowest ratings.

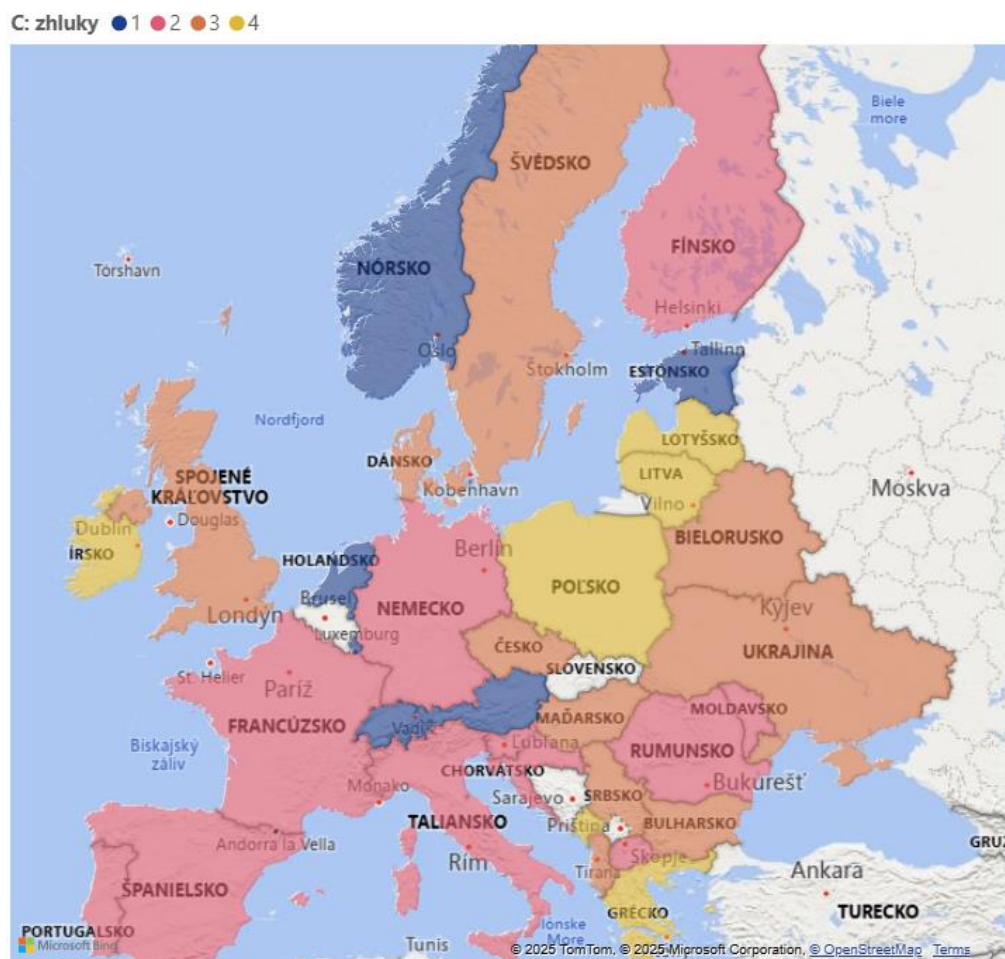


Figure 12 Map Based on the Average Assessment of the Existence of Territorial Potential Evaluation in Biosphere Reserves on the European Continent

Source: Authors' own processing of the research results in Power BI

Finally, we examined the functioning of and cooperation with stakeholders in biosphere reserves on the European continent. We assessed this area by evaluating resident involvement, the existence of participatory governance of the biosphere reserve, the existence of a separate biosphere reserve governing body, the existence of working groups within the biosphere reserve, the existence of partnerships and sponsorships, and the level of initiative and activity. In assessing initiative and activity, we considered the implementation of projects, activities, programmes, education, networking, as well as active presentation through websites, social media, events, and other forms of engagement. On a scale from 1 to 4, resident involvement received a score of 2.15, the existence of participatory governance 2.04, the

existence of a separate governing body 2.04, the existence of working groups 2.40, the existence of partnerships and sponsorships 2.49, and the assessment of initiative and activity 2.04.

We likewise calculated the mean of these values and subsequently tested the data for individual countries using cluster analysis, in which three clusters were identified through a dendrogram; see Appendix 52. Based on the dendrogram, we generated a cluster chart; see Appendix 53. Subsequently, using Power BI, we projected these clusters onto a map showing which countries belong to each cluster. As shown in Figure 13, the countries shown in blue achieved the highest ratings for the functioning of and cooperation with stakeholders in biosphere reserves on the European continent, those shown in red achieved medium ratings, and those shown in orange achieved the lowest ratings.

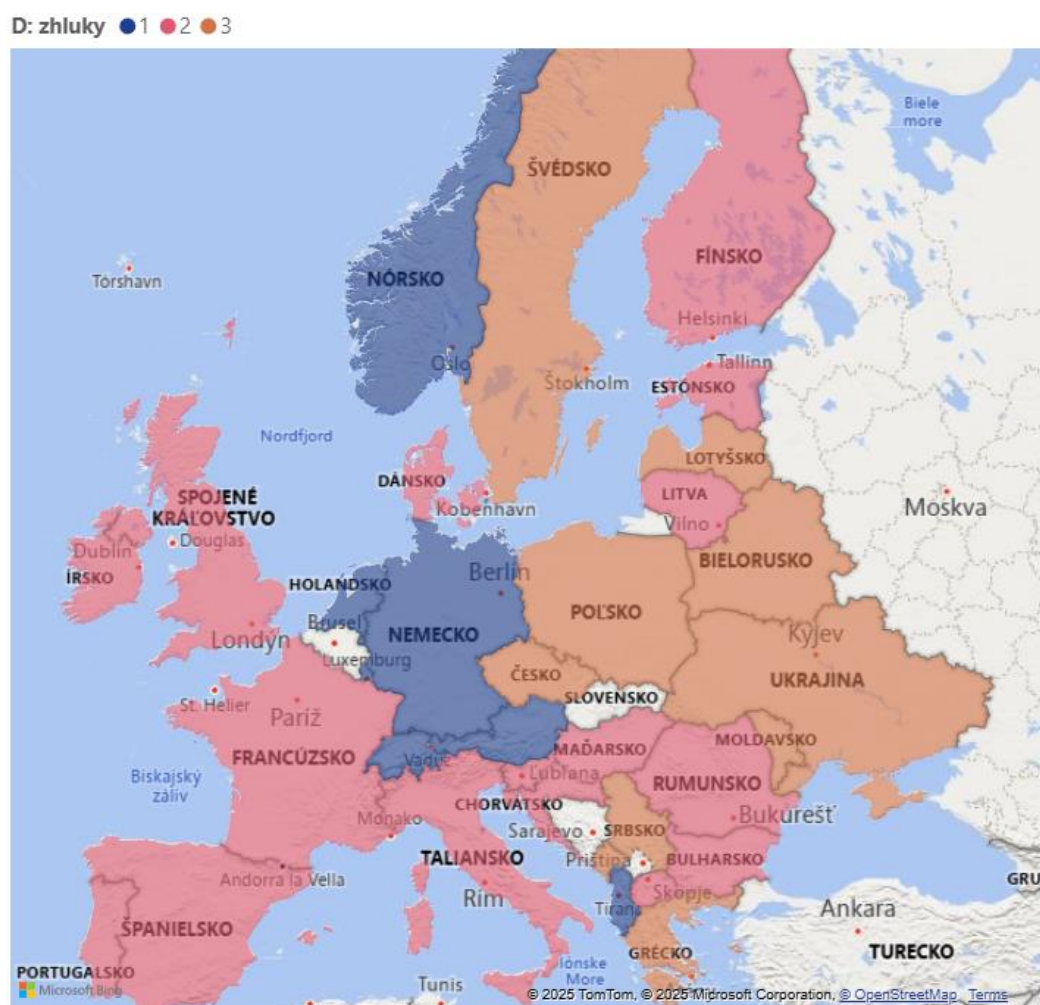


Figure 13 Map Based on the Average Assessment of the Functioning of and Cooperation with Stakeholders in Biosphere Reserves on the European Continent
Source: Authors' own processing of the research results in Power BI

3.8. Discussion

In the context of the established specific objectives, we examined seven research questions in the dissertation (see Figure 3). The main objective, specific objectives, and research questions of the dissertation were addressed through the implementation of several primary and secondary research studies.

Specific objective **C₁** was achieved through the completion of the first chapter of the dissertation. Based on the theoretical postulates, we identified a research gap and answered research question **V₁** by defining the specific characteristics of strategic planning for the development of biosphere reserves. The development of biosphere reserves can be pursued through strategic planning based on adherence to the principles of sustainability (Batisse, 1997; Ishwaran, Persic, Tri, 2008; Ishwaran, 2012; König, Uthes, Ostermann-Miyashita, Eufemia, Hemminger, Hermanns, Bethwell, Stachow, Helming, 2022; Reed, Price, 2020; Bridgewater, 2002; UNESCO, 1996; UNESCO, 2015) (e.g., Yazdandoost, 2019; Van Cuong, Dart, Hockings, 2017; Job, Becken, Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, Torkayesh, 2022). Our research also confirmed the potential of biosphere reserves to serve as model areas for sustainable development. Local residents also perceive the existence of biosphere reserves as an opportunity for development. Biosphere reserve stakeholders perceive their contribution to regional development and the added value resulting from their activities within the biosphere reserve.

Specific objective **C₂** was achieved through three research questions based on structured interviews examining perceptions of the status of biosphere reserves and the planning of their development at the national level and from the perspective of biosphere reserve managers in the Slovak Republic, as well as through the outputs of meetings and workshops conducted within the APVV-20-0108 project Implementing the 2030 Agenda through Biosphere Reserves and an analysis of biosphere reserve plans in the Slovak Republic. This objective was also achieved through questionnaire surveys assessing the quality of life in biosphere reserves in the Slovak Republic from the perspective of their residents, evaluating the cooperation and functioning of biosphere reserves in the Slovak Republic from the perspective of their stakeholders, and assessing the tourism offerings of biosphere reserves in the Slovak Republic from the perspective of tourists. Based on the findings, we answered research question **V₂**, which examined how biosphere reserves in the Slovak Republic apply a strategic planning approach to their development. The results indicate that strategic planning for the development of biosphere reserves is not applied under our conditions, although

several authors confirm the need for development planning in biosphere reserves, the need for their strategic development, and the need for a strategic approach to biosphere reserve planning (e.g., Ortega-Alul, Vergara-Fernandez, Argandoña-Castro, Gallardo-Alvarez, 2023; Kuhn, 2000; Martín-López, García-Llorente, Palomo, Montes, 2011; Yazdandoost, 2019; Van Cuong, Dart, Hockings, 2017). Although strategic development planning should form an integral part of every biosphere reserve, both practice and the results of our research show that 10.73% of biosphere reserves on the European continent have no plan at all, while in several cases their planning is neither strategic nor sustainable. In the Slovak Republic, only one of the four biosphere reserves has a current action plan of a strategic nature, and even this plan is not publicly available.

Biosphere reserve planning should take sustainable development into account, pursued in accordance with the requirements of and emphasis on all dimensions—economic, social, and environmental (e.g., Wheeler, 2009; Brandon, Gorenflo, Rodrigues, Waller, 2005; Kearney, Berkes, Charles, Pinkerton, Wiber, 2007; Eizenberg, Jabareen, 2017; Schädler, Morio, Bartke, Rohr-Zaenker, Finkel, 2011; Lyon, Hunter-Jones, Warnaby, 2017). Other authors point out that these approaches are currently focused primarily on nature conservation (Brandon, Wells, 1992; Brown, 2002). The results of our research confirm this finding. We found that, under our conditions, biosphere reserve planning does not address all development potentials and dimensions, with natural-geographical planning and approaches prevailing over socio-economic ones. In biosphere reserves in the Slovak Republic, development planning does not address socio-economic planning, with the exception of the Poľana Biosphere Reserve. The conflict between nature conservation and development interests in biosphere reserves was also confirmed. The results further confirmed that biosphere reserve managers recognize the importance of socio-economic planning and that local residents recognize the importance of socio-economic development. Many other authors specifically emphasize the need to plan and manage the socio-economic development of biosphere reserves (e.g., Castillo-Eguskiza, Schmitz, Onaindia, Rescia, 2019; Moreira-Muñoz, Carvajal, Elórtgui, Rozzi, 2019; Thao, Eales, Lam, Hien, Garside, 2023; Kuhn, 2000; Van Cuong, Dart, Dudley, Hockings, 2018; Van Cuong, Brown, 2013; Van Cuong, Dart, Hockings, 2017). Raszka and Heldak (2023) argue that, despite this, the potential of biosphere reserves is generally not translated into strategically planned socio-economic development reflected in development documents, including development strategies, planning documents, and spatial development documents. Biosphere reserves in the Slovak Republic possess substantial natural-geographical, cultural-historical, and social potential. Their overall potential is also perceived

positively by local residents, who view living in a biosphere reserve positively; stakeholders positively perceive the fact that they operate within a biosphere reserve; and tourists positively perceive being in a biosphere reserve. The importance of, and the current lack of, planning that addresses all aspects of the potential of biosphere reserves creates scope for an innovative approach to planning the sustainable development of these areas and, at the same time, directly responds to the need for their strategic planning (Job, Becken, Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, Torkayesh, 2022), which generally helps the public sector achieve desired outcomes but has not yet become a sufficiently established and common practice (Bryson, Hamilton, Edwards, Van Slyke, 2018; Bryson, Edwards, Van Slyke, 2022).

Biosphere reserves are also recognized as model areas or examples of best practice where the coexistence of people and nature is promoted while reflecting the goals of the 2030 Agenda (UNESCO, 2022; Bridgewater, 2002; Van Cuong, Dart, Hockings, 2017; Lepeška, 2012). The UNESCO Man and the Biosphere Programme also aims to support the implementation of the 2030 Agenda (Heinrup, Schultz, 2017; Rockström, Sukhdev, 2016; Stanvliet, Coetzer, 2020; Stoll-Kleemann, O’Riordan, 2017; UNESCO, 2015; UNESCO 2017). The research results likewise confirmed the link between biosphere reserves and their contribution to the implementation and achievement of the goals of the 2030 Agenda.

Based on the results, we were also able to answer research question **V₃**, which examined how a participatory approach to strategic development planning is implemented in practice in biosphere reserves in the Slovak Republic. The development and strategic planning of biosphere reserves should be based on participatory governance through stakeholder engagement and partnership building, which are essential for the management and sustainable development of biosphere reserves (Sagie, Orenstein, 2022; Bouamrane, Spierenburg, Agrawal, Boureima, Cormier-Salem, Etienne, Le Page, Levrel, Mathevet, 2016; Stoll-Kleemann, De la Vega-Leinert, Schultz, 2010; Monge-Ganuzas, Gurrutxaga, Muguruza, Telleria, 2023; Walk, Luthardt, Nölting, 2019; Wali, Alvira, Tallman, Ravikumar, Macedo, 2017; Engelbauer, 2023; Fritz-Vietta, Röttger, Stoll-Kleemann, 2009; Nölting, Mann, 2018; Schultz, Duit, Folke, 2011; Nikolakis, 2020; Folke, Berkes, 1998; Holling, 2001; Chapin, Kofinas, Folke, 2009; Dearden, Bennett, Johnston, 2005; Slocum-Bradley, 2003; Reed, 2008; Folke, Hahn, Olsson, Norberg, 2005; Walker, 2002; Folke, Colding, Berkes, 2003).

The results indicate that the extent to which a participatory approach to strategic planning is ensured in biosphere reserves in the Slovak Republic is low. The research findings confirm the development of participatory and community planning in biosphere reserves, while also pointing to a persistently low level of participation. The results confirm that

biosphere reserve managers recognize the importance of participatory governance. Local residents of biosphere reserves also recognize the importance of developing participation and innovation, as well as partnerships and relationships. Stakeholders likewise perceive the participation of local residents positively, are willing to support the functioning of biosphere reserves, and are interested in future cooperation on projects; however, there is also a prevailing reluctance among stakeholders to cooperate and reach agreements. The results also confirmed insufficient communication and coordination among stakeholders. From a public policy perspective, these findings point to the need to establish and develop participatory mechanisms in biosphere reserves that would enable the systematic involvement of stakeholders in strategic planning processes.

Subsequently, our research findings showed that in all biosphere reserves in the Slovak Republic, with the exception of the Tatry Biosphere Reserve, local residents face insufficient services and infrastructure, limited housing and house-building opportunities, a lack of employment opportunities, and inadequate accessibility of the area. These areas face population outmigration, particularly among young people, as well as a lack of tourists and insufficient marketing. In the case of the Tatry Biosphere Reserve, services are expensive for local residents, while the area faces excessive development, mass tourism, corruption, and over-commercialization. Residents of all biosphere reserves positively evaluate the quality of the environment, the preservation of traditions, and opportunities for cultural activities. Tourists are perceived as contributing to the development of the area. The results indicate that services and infrastructure in biosphere reserves are insufficient also from the tourists' perspective. Opportunities for tourists to access biosphere reserves by means other than private cars are likewise insufficiently developed. The management and maintenance of biosphere reserves are also perceived as inadequate. The results confirmed that tourists recognize the importance of improving the quality and diversity of services, accessibility and transport infrastructure, accommodation and support services, information and guide services, the tourism attractiveness of the area, and the maintenance of hiking trails and the natural environment. Tourists visiting biosphere reserves positively evaluated the landscape character, tranquillity, and peacefulness. They are willing to pay an entrance fee and comply with access restrictions. The research results confirm the development of environmentally friendly forms of tourism, the use of the biosphere reserve brand, and the development of the local economy through local products, although these remain at a relatively low level. Applying a strategic planning process in the context of biosphere reserves could contribute to addressing several of these problems (Vitálišová, Miňová, Vaňová, 2021). These findings indicate the need to

support sustainable forms of tourism that respect the limits of these areas while simultaneously promoting their economic development.

Research question V₄, through which we examined whether the published plans of biosphere reserves in the Slovak Republic were developed in accordance with and meet the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme, was answered through an analysis of the plans of biosphere reserves in the Slovak Republic. The issue of strategic planning for biosphere reserves in the Slovak Republic is addressed by the existing planning documents, which focus primarily on environmental protection. None of the documents developed for the territories in which biosphere reserves are located comprehensively addresses the socio-economic dimension, thereby largely overlooking the development function of biosphere reserves. Biosphere reserves in Slovakia face, in particular, insufficient recognition of their status, the absence of a comprehensive institutional, legislative, and financial framework, the lack of a long-term strategic approach to their development, and insufficient knowledge of biosphere reserve territories in relation to the socio-economic aspects of development, with an emphasis on biodiversity conservation in synergy with human activities (Vitálišová, Miňová, Vaňová, 2021). This statement is also supported by the results of our research, which additionally point to the insufficient definition of competencies and responsibilities at both the national and local levels, as well as inadequate staffing and capacity. These findings indicate the need to strengthen the socio-economic dimension of biosphere reserve planning. Strategic documents should systematically address issues related to the quality of life of local residents, the development of the local economy, the promotion of employment opportunities, and the development of cooperation among key stakeholders in the area. The findings also indicate the need for a stable financial framework for biosphere reserves. From a public policy perspective, it is therefore appropriate to strengthen the diversification of funding sources, for example through project-based financing, support for local products, or the use of the biosphere reserve brand.

The current valid document that should guide Slovak biosphere reserves is the Action Plan for the Implementation of the UNESCO MAB Programme and the World Network of Biosphere Reserves in the Slovak Republic for 2018–2025, which contains five strategic areas. These are based on internationally defined areas but have been adapted to national conditions and the needs of biosphere reserves, which constitute an important component of strategic planning for territorial development (ŠOPSR, 2022). The results of our research revealed a risk that UNESCO requirements may be fulfilled only formally, without substantive

implementation under national conditions. Based on the analysis of biosphere reserve plans in the Slovak Republic, we found that, under national conditions, the plans tend not to be developed in accordance with, and tend not to meet, the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO MAB Programme. The perceived absence of the implementation of a long-term national strategy and the lack of up-to-date, comprehensive strategic development plans for biosphere reserves were confirmed. According to the research results, this situation is also influenced by political instability, short-term political cycles, fragmentation and weak coordination of public policies, as well as insufficiently defined competencies and responsibilities across government departments. This situation may also be related to the insufficient recognition of the value and underutilized potential of biosphere reserves in the Slovak Republic, as well as the insufficient recognition of the value of the biosphere reserve brand. The biosphere reserve agenda is perceived as a secondary issue and more as a status designation than as a development instrument. The results also point to a generally low level of awareness of biosphere reserves and insufficient information provided to the public and political stakeholders. These findings have significant implications for public policy-making in the field of biosphere reserve governance. Strategic planning should be systematically supported at the national level through a clearly defined methodological framework and coordination among the relevant sectors of public administration. From a public policy perspective, this finding also points to the need for a change in the perception and design of the national strategy for biosphere reserves. Based on these findings, it is also necessary to develop a systematic communication strategy for biosphere reserves that would increase public awareness of their importance, status, and potential for territorial development. By answering research questions **V₂**, **V₃**, and **V₄**, we achieved specific objective **C₂**. Our findings to date concerning biosphere reserves in the Slovak Republic are summarized through a SWOT analysis in Table 29.

Table 29 SWOT Analysis of the Current State of Strategic Development Planning for Biosphere Reserves in the Slovak Republic

Silné stránky	Slabé stránky
Medzinárodné uznanie v rámci UNESCO MAB Vysoký prírodno-geografický, kultúrno-historický a sociálny potenciál území Potenciál pre modelové územia udržateľného rozvoja Existencia odborného zázemia Pozitívne vnímanie celkového potenciálu biosférických rezervácií miestnymi obyvateľmi Pozitívne hodnotenie kvality životného prostredia, zachovávaní tradícií a kultúrneho vyžitia miestnymi obyvateľmi Pozitívne vnímanie žitia, pôsobenia, nachádzania sa v biosférických rezerváciách miestnymi obyvateľmi, turistami a stakeholdermi	Absencia implementácie národnej dlhodobej stratégie pre biosférické rezervácie Absencia aktuálnych komplexných strategických plánov rozvoja biosférických rezervácií s aplikáciou odporúčaní Technickej príručky Programu UNESCO MAB Slabé legislatívne, inštitucionálne a kompetenčné ukotvenie Nedostatočné personálne a kapacitné zabezpečenie Absentujúce stabilné a systémové financovanie Dominancia prírodno-geografického plánovania a prístupu nad socio-ekonomickým

Pozitívne hodnotenie krajinného rázu, ticha a pokoja turistami Uvedomovanie si dôležitosti participatívneho spravovania a socio-ekonomického plánovania biosférických rezervácií ich manažérmi Pozitívne vnímanie participácie miestnych obyvateľov stakeholdermi Uvedomovanie si dôležitosti socio-ekonomického rozvoja, rozvoja participácie a inovácií, partnerstiev a vzťahov, kultúry a služieb, infraštruktúry a dostupnosti v biosférických rezerváciách miestnymi obyvateľmi Uvedomovanie si dôležitosti rozvoja kvality a rozmanitosti služieb, dostupnosti a infraštruktúry dostupnosti, ubytovacích a podporných služieb, informačných a sprievodcovských služieb, starostlivosti o turistické chodníky a prírodu, a turistickej atraktivity územia v biosférických rezerváciách turistami	Nedostatočné služby a možnosti pre miestnych obyvateľov Nedostatočná komunikácia a koordinácia zainteresovaných subjektov Slabé/žiadne participatívne mechanizmy spravovania biosférických rezervácií Nízke povedomie a informovanie verejnosti a politických aktérov Nedostatočný marketing biosférických rezervácií Nedostatočná infraštruktúra a dostupnosť alebo prílišná výstavba Nedostatočné služby a dostupnosť iným prostriedkom než autom pre turistov
Príležitosti	Ohrozenia
Prepojenie biosférických rezervácií s implementáciou Agendy 2030 Rozvoj participatívneho a komunitného plánovania v biosférických rezerváciách Možnosti rozvoja participácie dané rozvojom informačno-komunikačných technológií Rozvoj šetrných foriem cestovného ruchu a lokálnej ekonomiky Využitie značky biosférickej rezervácie pre lokálne produkty Vnímanie existencie CHKO/NP/BR ako príležitosť pre rozvoj miestnymi obyvateľmi Vnímanie turistov v biosférických rezerváciách ako prínos pre rozvoj územia miestnymi obyvateľmi Vnímanie prínosu pre región a pridanej hodnoty vyplývajúcej z pôsobenia v biosférickej rezervácii stakeholdermi Ochota stakeholderov podporiť fungovanie biosférických rezervácií a záujem o budúcu spoluprácu na projektoch Ochota platiť poplatok za vstup a dodržiavať obmedzenie zákazu vstupu turistami	Politická nestabilita a krátkodobé politické cykly Fragmentácia a slabé prepojenie verejných politík a rezortov Riziko formálneho plnenia požiadaviek UNESCO bez reálneho obsahu Nedostatočne priznaná hodnota a využitý potenciál biosférických rezervácií a ich medzinárodne uznanej značky (vedľajšia agenda, nie nástroj rozvoja) Konflikty medzi ochranou prírody a rozvojovými záujmami Neochota spolupracovať a dohodnúť sa medzi zainteresovanými subjektami Starnutie populácie v biosférických rezerváciách Nedostatok pracovných príležitostí a odliv obyvateľov z území/masový turizmus, korupcia a prekomercializácia Málo/veľa turistov a s tým spojené problémy

Source: Authors' own processing

Specific objective **C₃** was achieved through three research questions based on an analysis of strategic development planning in biosphere reserves on the European continent. Research question **V₅**, which examined how strategic development planning is implemented in practice in biosphere reserves located on the European continent, and research question **V₆**, which examined how a participatory approach to strategic planning is implemented in foreign biosphere reserves located on the European continent, were answered through a primary analysis of strategic development planning in European biosphere reserves using a questionnaire survey. The results indicate that strategic development planning and participatory approaches to strategic planning are applied to a greater extent in biosphere reserves elsewhere on the European continent than under Slovak conditions; however, many

biosphere reserves still apply these approaches to only a limited extent or not at all. The results of the analyses show that most biosphere reserves consider themselves to have a strategic development plan. Biosphere reserves perceive development planning as a core responsibility of their governing body, while the plans are primarily prepared by representatives of local governments. The content of strategic plans mainly focuses on defining priorities for the biosphere reserve, including from the stakeholders' perspective, and on analysing the natural-geographical potential of the area, confirming that insufficient attention is devoted to the socio-economic development of the territory. Biosphere reserves identify the weaknesses of the planning process as insufficient funding, which leads to limitations on their activities; difficulties in involving a large number of stakeholders in strategy planning, such as a lack of time; the absence or inadequacy of a legal form; low levels of stakeholder interest and motivation; difficulties in obtaining and monitoring data; top-down governance without a bottom-up governance system; and outdated and irrelevant plans. The results also demonstrated and confirmed that biosphere reserves clearly contribute to the SDGs of the 2030 Agenda.

Research question V₇, through which we examined whether the published plans of biosphere reserves located on the European continent were developed in accordance with and meet the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme, was answered through a secondary analysis of biosphere reserve plans on the European continent. Based on the research results, we found that biosphere reserve plans on the European continent tend to be developed in accordance with and generally tend to meet the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO MAB Programme. The results also indicate that biosphere reserves primarily use action plans for planning purposes. The highest-rated area in these biosphere reserves is functioning and cooperation, while quality of life received the lowest rating. By answering research questions V₅, V₆, and V₇, we achieved specific objective C₃.

In comparing the problems and challenges associated with strategic development planning in biosphere reserves on the European continent with those in biosphere reserves in the Slovak Republic, we found that strategic development planning is absent in Slovak biosphere reserves and does not address socio-economic planning, with the exception of the Poľana Biosphere Reserve. Strategic planning is more developed and more widely applied in biosphere reserves elsewhere on the European continent; however, in many cases, socio-economic planning also remains underdeveloped abroad. Strategic development planning for

biosphere reserves in the Slovak Republic is also affected by the lack of implementation of a long-term national strategy, weak institutional and legislative anchoring, insufficient integration of participation into governance, an unclear division of competencies, and the strong dominance of natural-geographical planning. In biosphere reserves elsewhere on the European continent, planning is perceived as a core responsibility and tends to be carried out in a more participatory manner. Biosphere reserves in the Slovak Republic face the absence of systematic funding, whereas biosphere reserves elsewhere on the European continent are more commonly affected by insufficient financial resources. In both cases examined, it was confirmed that biosphere reserves contribute to achieving the goals of the 2030 Agenda. Based on the findings obtained through specific objectives C₂ and C₃, we achieved specific objective C₄, within which we compared selected problems and challenges related to strategic planning in biosphere reserves on the European continent with those in biosphere reserves in the Slovak Republic..

Specific objective C₅ will be achieved on the basis of the findings from all the preceding specific objectives. The proposed methodology for the strategic planning of biosphere reserves, together with recommendations for its implementation based on the results of the analysis and examples of good practice from abroad, is presented in the following subsection.

3.9. Proposed Methodology for Strategic Development Planning of Biosphere Reserves

Based on the theoretical postulates and our research, we were able to address the research gap identified in the dissertation, indicating that strategic development planning for biosphere reserves is a relatively new and under-researched, yet innovative and necessary approach in the context of biosphere reserves. This approach should be based on planning all aspects of the territory—economic, social, and environmental—with the aim of achieving sustainable territorial development and should be implemented through participatory governance of the territory. At the same time, we found that territorial development should also be based on systematically planned activities resulting from the strategic planning process (Vitálišová, 2017; Kita, 2002; Vaňová, 2006). Strategic planning is an important and indispensable component and instrument for the development of biosphere reserves. Based on our findings, we identified the main principles that should guide the strategic development planning of biosphere reserves. The first principle is integration—the need to plan for all aspects of development and all forms of territorial potential. The second principle is

participation, on which the functioning and planning of biosphere reserves should be based. The third principle is specificity, reflecting the fact that each biosphere reserve is unique and requires a specific vision, objectives, and measures. Therefore, the methodology cannot be applied uniformly; rather, its individual elements and recommendations may be used while taking into account the development factors of the external environment, in line with the so-called place-based approach. The fourth principle is cyclicity—the need for the continuous development of the planning process based on the current situation and continuity. The fifth principle is achievability—the development of a realistic and appropriately time-bound plan based on an analysis of the current situation and available information, with feasible and measurable objectives and measures corresponding to the relevant resources and capacities.

We understand the steps of strategic planning as the formulation of a vision and objectives, the conduct of strategic analyses and data collection, the preparation of a development strategy, the preparation of stakeholder strategies, the definition of measures for strategy implementation, strategy implementation, control, monitoring and evaluation of strategies and measures for strategy implementation, communication and cooperation in the preparation of strategic documents, and the provision of information and opportunities for commenting on strategic documents (Grünig, Kühn, 2002; 2015). Based on our findings and examples of good practice from abroad, we propose a methodology for the strategic development planning of biosphere reserves through the strategic planning process (see Figure 1 on page 31), in which we define the specific features applicable to biosphere reserves within each individual phase.

0. Strategy Planning

Strategy planning is a preliminary step in the strategic development planning of a biosphere reserve. At this stage, institutional anchoring and a clear definition of competencies and responsibilities within the strategic development plan are essential. Subsequently, we recommend defining the financial and capacity framework and establishing the basic governance and coordination structure of the biosphere reserve or, where applicable, its governing body. As an example, we present the organizational structure of the Lower Morava Biosphere Reserve in the Czech Republic (Figure 14).

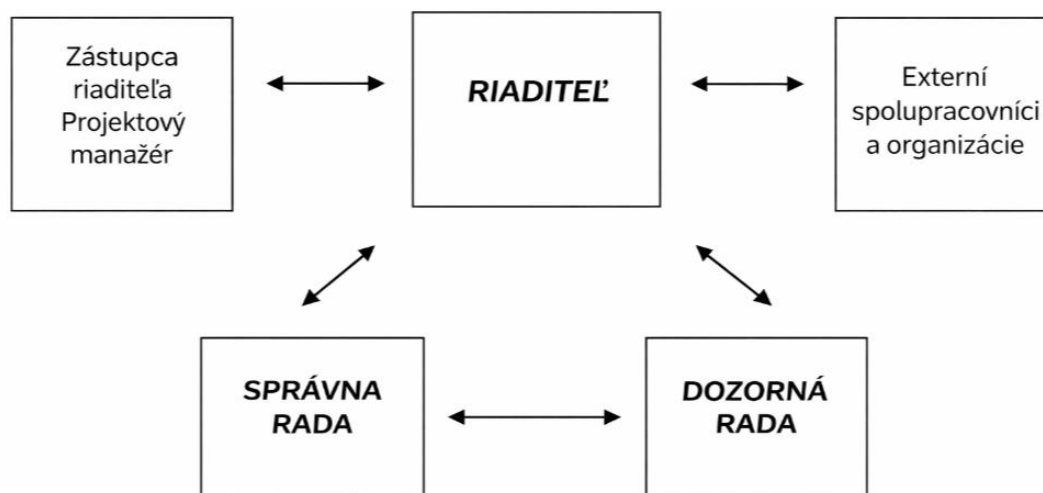


Figure 14 Example of the Organizational Structure of the Lower Morava Biosphere Reserve in the Czech Republic

Source: Translation of the original figure from the biosphere reserve plan using the ChatGPT AI tool

Although this represents a general methodological framework for the strategic planning of biosphere reserves, it is essential to emphasize that this step is crucial in the context of the Slovak Republic, particularly due to the lack of a legal framework for biosphere reserves, the absence of a funding system, and insufficient staffing of biosphere reserves. Unless these operational frameworks are established, the proper implementation of the subsequent steps cannot be realistically considered.

Furthermore, it is advisable to establish working groups with regard to the main identified development priorities, for example socio-economic development, crafts, youth, schools, education and culture, tourism, and agriculture, as illustrated by the example of the Grosses Walsertal Biosphere Reserve in Austria. At this stage, it is also important to establish a participatory governance process and identify the key stakeholders and the rules for stakeholder engagement. A good example of identifying stakeholders and the relationships among them is the participatory governance structure of the Mont Ventoux Biosphere Reserve in France; see Figure 15.

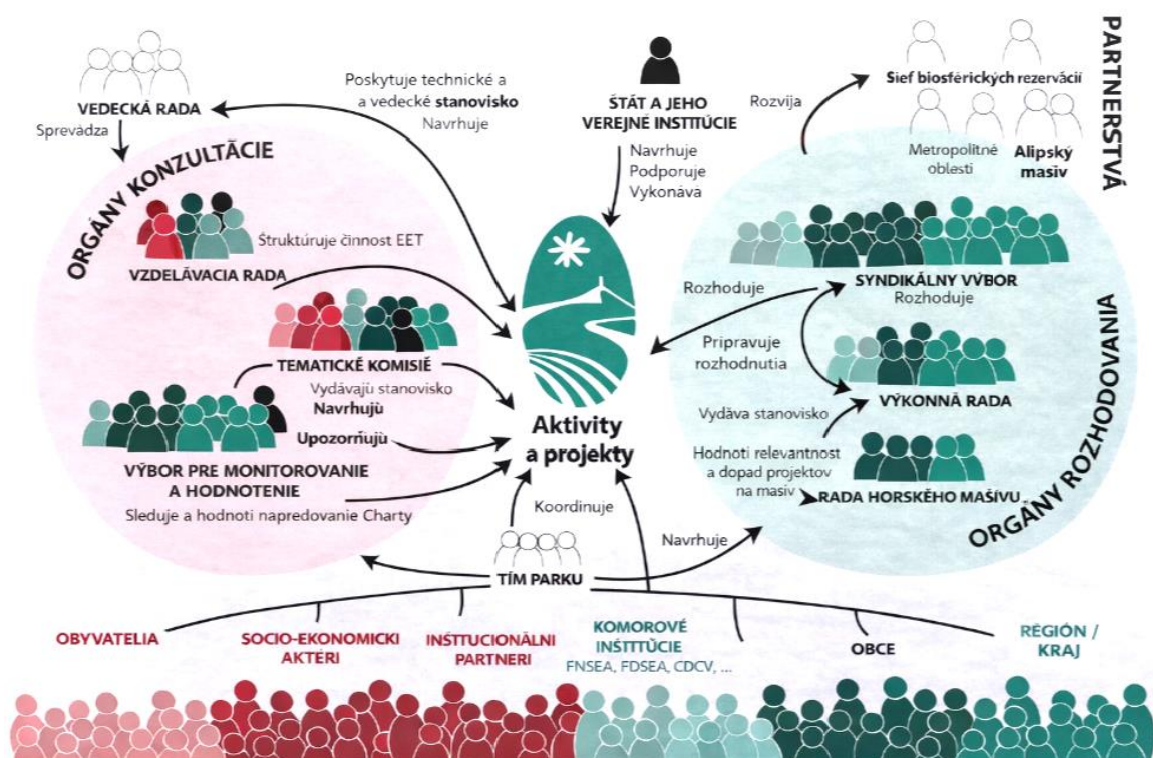


Figure 15 Example of the Participatory Governance Structure of the Mont Ventoux Biosphere Reserve in France

Source: Translation of the original figure from the biosphere reserve plan using the ChatGPT AI tool

To ensure participatory governance of a biosphere reserve, it is necessary to diversify the range of stakeholders and plan which stakeholders will be involved, at which stage of the strategic planning process, and which participatory tools will be used. Based on the results of our research and their comparison with the theoretical foundations, biosphere reserve stakeholders may include citizens, entrepreneurs, churches, local governments, NGOs in the field of education, environmental NGOs, NGOs in the social sector, NGOs in the field of culture, government offices and authorities, the media, scientific institutions, universities, destination management organizations, as well as other stakeholders specific to the particular biosphere reserve. Participatory tools may include, for example, public meetings and discussions/hearings, questionnaire surveys, stakeholder polls, stakeholder participation in working groups, discussion forums with representatives of stakeholder groups, contacting stakeholders by post, email, newsletters, or magazines, open data portals, open data visualizations/applications, databases for sharing information within local authorities, the biosphere reserve website, online communication through social media, participatory budgeting (online and offline), hackathons and competitions for stakeholders, educational activities aimed at stakeholders and biosphere reserve staff, and the organization of events. The form of participation should be selected with regard to the characteristics of the

stakeholder and the purpose of the participatory activity. In terms of the visual design of a biosphere reserve development document, various types of infographics can be used to facilitate the monitoring of the strategy planning and implementation process. In the strategic plan, specific images or symbols can, for example, be assigned to individual stakeholders, as illustrated by the Schaalsee Biosphere Reserve in Germany. These can then be used throughout different stages of the strategic plan to clearly show the allocation of responsibilities—indicating which stakeholder is to be involved at each stage and in relation to which objective, specific objective, or measure.

1. Formulation of the Strategy Vision and Objectives

The foundation of a strategic approach is the definition of a vision that should be long-term, based on three dimensions—environmental, social, and economic—and contribute to the sustainable development of the biosphere reserve. The formulation of the vision and objectives should be participatory. Appropriate participatory formats include work in thematic working groups, World Café sessions, public hearings, discussions, and others. For inspiration, Figure 16 presents the example of the Swabian Alb Biosphere Reserve in Germany. On the left-hand axis, various stakeholders involved in setting priorities and objectives can be seen, followed by the stages of strategic planning—the initiation phase, the plan development process, project development, and the completion phase—during which selected participatory tools are applied.

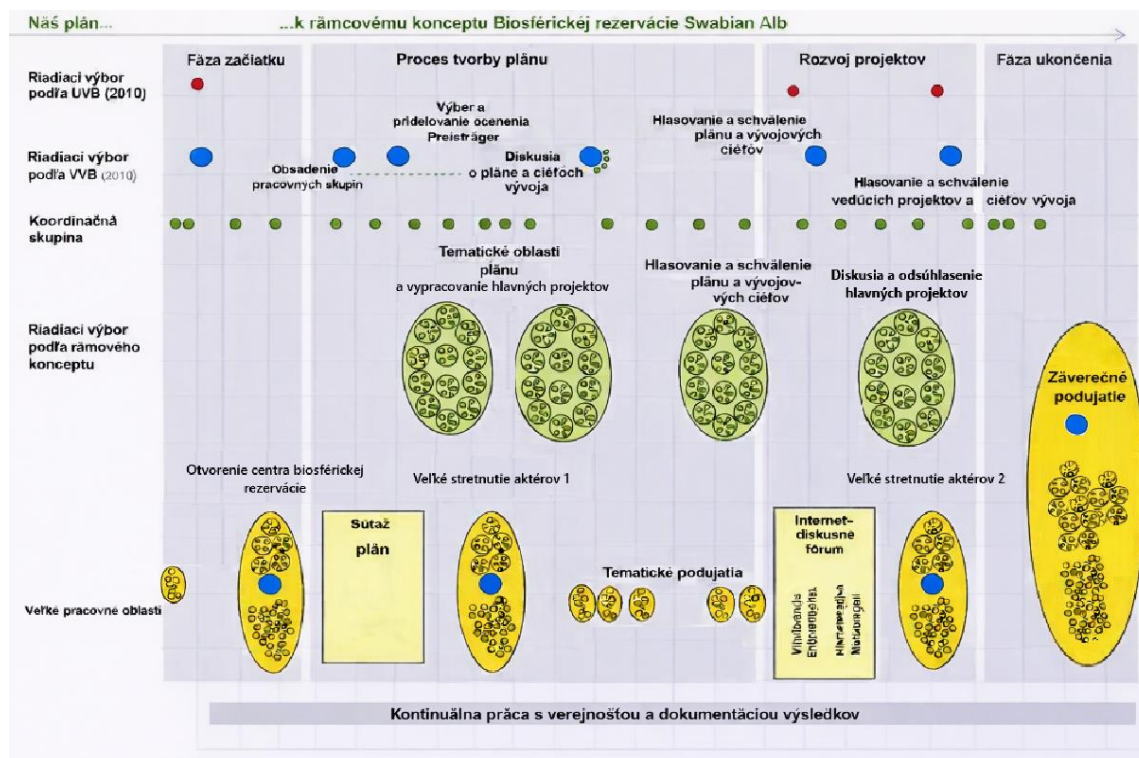


Figure 16 Example of a Stakeholder Participation Planning Diagram Across the Planning Phases of the Swabian Alb Biosphere Reserve in Germany

Source: Translation of the original figure from the biosphere reserve plan using the ChatGPT AI tool

The development objectives of a biosphere reserve should be linked to the functions of the biosphere reserve and the main identified development priorities. They should respect the requirements of the UNESCO MAB Programme, the recommendations of the Technical Guidelines for Biosphere Reserves, and other regional plans, plans relating to the biosphere reserve, plans of projects in which the biosphere reserve is involved, plans concerning the territory of the biosphere reserve, and, where relevant, plans of stakeholders operating within the biosphere reserve. The objectives should meet the following attributes: specific, measurable, achievable, relevant, and time-bound. The main objective should be appropriately divided into specific objectives. All objectives should be clearly identified, and the planning document should clearly and transparently define the entity or entities responsible for achieving each objective, the budget, the source of funding, the activities or measures required to achieve the objective, the stakeholders and partners involved, the outputs, and measurable indicators for evaluating the achievement of the objective and its measures. At this stage, a priority- and ambition-setting table may also be used, containing the measures, their identifiers, an indication of the links between the measures and the variables on the horizontal axis, and space for marking the evaluation status; see Figure 17, which presents an example from the Mont Ventoux Biosphere Reserve in France.

	OPATRENIE	Spolupráca	Výskum a inovácie	Vzdelávanie	Prírodné dedičstvo a biodiverzita	Voda a vodné prostredie	Kultúra a dedičstvo	Energia a klíma	Poľnohospodárstvo a agropotravinárstvo	Cestovný ruch a aktivity v prírode	Les	Obchod, remeslá a priemysel	Územné plánovanie a urbanizmus	Krajina
AMBÍCIA RÁMCA Pre spoločný projekt územia	1													
	2													
	3													
	4													
	5													
	6													
	7													

Figure 17 Example of an Evaluation Table from the Mont Ventoux Biosphere Reserve in France

Source: Translation of the original figure from the biosphere reserve plan using the ChatGPT AI tool

It is also necessary to establish a timeline for the planning, implementation, and evaluation of the achievement of objectives, specific objectives, and measures. For effective orientation, we recommend creating, for example, a Gantt chart, as illustrated by the Bliesgau Biosphere Reserve in Germany. The plan may also illustrate contributions to the implementation of the 2030 Agenda by graphically linking the Sustainable Development Goals to specific objectives and measures in the strategic plan, as demonstrated by the Schaalsee Biosphere Reserve in Germany and the Xurés Biosphere Reserve in Portugal. The plan may also be linked to the implementation of specific provisions of legislation, as in the Julian Alps Biosphere Reserve in Slovenia, or supplemented with factors representing external and internal influences on the achievement of objectives and measures, as illustrated by the Gorges du Gardon and Iles et Mer d'Iroise Biosphere Reserves in France.

2. Conducting Strategic Analyses and Data Collection

Conducting strategic analyses and collecting data requires a comprehensive approach—an analysis of the current state of all forms of territorial potential: natural-geographical, socio-demographic, socio-economic, and innovation potential. Within each of these areas of potential, aspects of the quality of life of the local population as well as aspects of the tourism offer should also be analysed. The analysis may subsequently focus in greater depth on identified challenges, such as access to services, employment opportunities, population outflow, inadequate infrastructure, accessibility of the area, visitor numbers, the impacts of tourism, the local economy, and local products. Examples of good practice that may serve as inspiration for comprehensive and detailed analysis within strategic planning include the Sierra Nevada Biosphere Reserve in Spain and the Rhön Biosphere Reserve in Germany. The latter provides a detailed analysis of the environmental, economic, social, and demographic dimensions, as well as spatial planning, land use, research, monitoring, and territorial management. Stakeholders should also be systematically involved in conducting analyses and collecting data. Such involvement may take the form of questionnaire surveys or structured interviews. Based on the example of the Central Balkan Biosphere Reserve in Bulgaria, a questionnaire may also focus on assessing housing, infrastructure, employment opportunities, tourism, or product development and may be distributed to various stakeholders, including local residents, tourists, mayors, members of municipal councils, entrepreneurs, associations, and local actors in areas such as sport, culture, agriculture, and

the environment. Examples include the Unteres Murtal/Lower Mura Valley Biosphere Reserve in Austria, which conducted extensive questionnaire surveys; the Mont Ventoux Biosphere Reserve in France, where more than 400 questionnaires were collected; the Wienerwald Biosphere Reserve in Austria, where more than 300 questionnaires were collected; and the Área de Allariz Biosphere Reserve in Spain, which systematically works with feedback from local residents. Questionnaires may also be used when planning and examining stakeholder needs, investigating stakeholders' problems and priorities in relation to the biosphere reserve, examining their perceptions of the biosphere reserve, its significance, expectations, and benefits for stakeholders, or evaluating the activities of the biosphere reserve administration. Examples include the Ordino Biosphere Reserve in Andorra; Salzburger Lungau & Kärntner Nockberge in Austria; Berchtesgadener Land in France; Bliesgau, Rhön, Schaalsee, Flusslandschaft Elbe, Schorfheide-Chorin, South-East Rügen, Swabian Alb, and Wadden Sea and Hallig Islands of Schleswig-Holstein in Germany; and Sierra Nevada, Ordesa-Vinamala, Fuerteventura, and Urdaibai in Spain. Another source of inspiration may be the Dublin Bay Biosphere Reserve in Ireland, which conducts analyses and data collection through citizen science, as well as biosphere reserves that operate as or use elements of living laboratories in which new approaches to the sustainable development of the territory are tested in various fields. Examples include the Po Grande Biosphere Reserve in Italy, Kristianstad Vattenrike in Sweden, and Brighton and Lewes Downs in the United Kingdom of Great Britain and Northern Ireland. Strategic analyses and data collection should also be complemented by various analytical methods, such as SWOT analysis, TOWS synthesis, or PESTLE analysis, the outputs of which provide a sound basis for formulating the development strategy.

3. Development of Alternative Territorial Development Strategies for Achieving Objectives, Evaluated According to Predefined Factors

The next step is to develop alternative territorial development strategies representing different ways of achieving the established objectives, evaluated according to predefined factors. At this stage, we recommend proposing alternative approaches to achieving the sustainable development objectives of biosphere reserves, for example, a strategic plan supplemented by an action plan covering a shorter period. It is also important at this stage to involve relevant stakeholders in the process of developing and communicating the strategy, as well as in information-sharing and consultation. The strategic planning process also includes the approval of strategic documents, which should be carried out with the participation of relevant stakeholders. Ideally, it could also include a binding commitment from these stakeholders regarding their participation, responsibilities, and competencies. The approval

process should not take place solely internally but should also involve national institutions and organizations in order to secure their formal position and cooperation, as well as the wider public in order to raise awareness.

Ideally, the evaluation should include, for example, a success factor for objective achievement, scored on a selected scale according to indicators, as illustrated by the Unteres Murtal/Lower Mura Valley Biosphere Reserve in Austria. Alternatively, a traffic-light system or a five-point colour-coded evaluation scale may be used, based on assigned percentages of objective or measure achievement, ranging from undefined 0, very poor 1, poor 2, average 3, good 4, to very good 5, together with an implementation status ranging from unknown, not started, started, to completed; see Figure 18. This scale is linked to the objectives, measures, and assessment of the current situation, which in turn is connected to the long-term vision and to the influences on measures and strategic actions through multiple variables, as illustrated by the Iles et Mer d'Iroise Biosphere Reserve in France.



Figure 18 Example of a Scale for Evaluating the Achievement of Measures and Objectives in the Iles et Mer d'Iroise Biosphere Reserve in France

Source: Translation of the original figure from the biosphere reserve plan using the ChatGPT AI tool

Another alternative is to establish evaluation questions linked to the main development priorities, which are connected to objectives and measures. The answers to these questions can help identify which objectives and measures need to be revisited, as illustrated by the Cévennes Biosphere Reserve in France. It is also possible to develop software for evaluating objectives that are assigned specific codes. The objectives are recorded in the system according to these codes, and their level of achievement is assigned using a selected evaluation scale. Information on the budget and resources spent can also be efficiently entered into such software, as demonstrated by the Mont-Viso Biosphere Reserve in France. Another option is to create a checklist table containing all objectives and link it to individual measures by indicating the objectives to whose achievement each measure contributes, as illustrated by the Berchtesgadener Land Biosphere Reserve in Germany.

The Mont Ventoux Biosphere Reserve also has an interesting system of indicators. Each objective is associated with challenges that are evaluated through indicators, with the target values of these indicators increasing over the years covered by the strategic plan. The plan also incorporates a dedicated visual design. The challenges are identified using specific symbols and colours according to their level of importance: key challenges are shown in green, urgent challenges in red, and priority challenges in purple; see Figure 19.



Figure 19 Example of the Classification of Challenges by Importance in the Mont Ventoux Biosphere Reserve in France

Source: Own elaboration based on the original biosphere reserve plan

The prioritisation of measures is also indicated in the Vosges du Nord Biosphere Reserve in France. A joint planning document has been developed for this biosphere reserve and the national park. Therefore, a specific biosphere reserve symbol is placed next to the objectives and measures that relate to the biosphere reserve. In addition to this symbol, various other symbols are used to represent, for example, different constraints, other plans, territories and municipalities, natural and ecological areas, regulatory protection, biodiversity, agriculture, forestry, energy, settlement and urban planning, landscape, cultural heritage, water and water resources, tourism, mobility, tourism infrastructure, traffic regulation, and landscape identity units. Within each of these areas, several symbols are used to indicate status or to identify, for example, particular organisations. These symbols are used consistently throughout the plan, including in the objectives and measures.

4. Development of Stakeholder Strategies

The next step in strategic planning is the development of stakeholder strategies. These stakeholders may be understood as the identified stakeholders of biosphere reserves. A prerequisite for entering into a formal partnership is the legal personality of the biosphere reserve, or at least of one of its constituent bodies, such as its governing body.

Within these specific stakeholder strategies, we recommend planning cooperation with the relevant stakeholders or determining a mutually acceptable level of non-financial and financial support, for example through local businesses and agricultural products used in restaurants, tourism facilities, schools, or other companies for further processing. An inspiring

example from the Luberon Lure Biosphere Reserve in France is the project "From the Farm to Your Canteen", which, with the participation of students, brings producers and school canteens closer together. The project provides children from 30 municipalities in the region with healthy meals made from local products. Some municipalities, for example, use 60% to 80% local and organic products in school canteens on a daily basis. Events and projects may also be supported by hotels, restaurants, travel agencies, entrepreneurs and craftspeople, as well as educational or cultural institutions. The strategy may also establish arrangements for cooperation with a regional bank, a network of businesses, partners, or other supporters of the biosphere reserve's activities, projects, environmental education, regional products, and landscape restoration, including through fundraising activities. A civic or other association may also be established for this cooperation, with defined membership fees and mechanisms for accepting donations. A biosphere reserve may also have an association or foundation supporting various development projects within its territory, as illustrated by the biosphere reserves of Berchtesgadener Land, Bliesgau, Schaalsee, South-East Rügen, Spreewald, and Swabian Alb in Germany; Pfälzerwald/Vosges du Nord in Germany and France; Brighton and Lewes Downs in the United Kingdom of Great Britain and Northern Ireland; Maasheggen in the Netherlands; and Entlebuch in Switzerland.

Various partnership projects or platforms may emerge through cooperation. In the Rhön Biosphere Reserve in Germany, the Rhöner Qualität network was established, bringing together farms and producers of regional products, entrepreneurs, educational centres, civic initiatives and projects, as well as local energy associations. The biosphere reserve sponsors various initiatives while also receiving donations and financial and non-financial support from regional food companies and craftspeople. It also carries out fundraising activities. In the North Karelian Biosphere Reserve in Finland, a sustainable development partnership network and an international cooperation network were established. In the Kristianstad Vattenrike Biosphere Reserve in Sweden, the Water Kingdom Friends platform was created to raise funds and support projects contributing to the development of the biosphere reserve. The reserve also has approximately 280 ambassadors who support its activities.

A marketing communication strategy for the biosphere reserve should form one of its specific strategies in order to ensure effective communication and increase awareness and access to information. The network of information points in the Julian Alps Biosphere Reserve may serve as an inspiring example of how to improve awareness and information provision. The centres are used for various educational activities, workshops, and local community activities. They also include souvenir and gift shops offering local products. During the

summer, tourists can purchase the Bohinj Card, which includes free bus transport, including regular services throughout Bohinj for the entire validity period of the card, organised hop-on hop-off bus services during the high season, and free taxi services to various parts of Triglav National Park; free train transport; free parking; a free panoramic boat trip on Lake Bohinj; free admission to attractions; free access to entry and exit points; and additional discounts. All discounts are provided with the aim of reducing the carbon footprint and promoting the use of public transport, while also supporting local producers and local cultural heritage. Another inspiring example is the Pfälzerwald/Vosges du Nord Biosphere Reserve in Germany and France, which increased awareness through a social media competition held during Advent. The biosphere reserve created an Advent calendar on its social media channels, through which followers could compete each day for products from regional businesses carrying the regional brand by correctly answering a question about the biosphere reserve. A new question was published every day.

5. Determination of Measures for Strategy Implementation

As part of the step of defining measures for strategy implementation, it is important to propose appropriate, analysis-based measures that will form the basis for achieving the established objectives. The measures must include the basic attributes described in the section on formulating the strategy's vision and objectives, such as a designation and a clearly defined entity responsible for implementation, a budget, a source of funding, stakeholders and partners, outputs and measurable indicators for evaluating the achievement of the measure, and a timeframe. In terms of content, the measures should address the identified development priorities and analysed challenges, while contributing to the sustainable development of the biosphere reserve across all three dimensions – environmental, social and economic. The measures should form part of either a multi-year or annual action plan. The extent of the biosphere reserve's involvement depends on its legal status, allocated budget, and eligibility to participate in relevant grant calls. Research and practice have confirmed that annual planning and reporting are highly effective. This is demonstrated by examples from the Maasheggen Biosphere Reserve in the Netherlands and the Kristianstad Vattenrike Biosphere Reserve in Sweden. At this stage, it is also important to involve relevant stakeholders and use appropriate participatory tools.

6. Strategy Implementation

The next step is strategy implementation. Its success is determined by the biosphere reserve's implementation unit, which may consist of an office, association, council, committee or another body of the biosphere reserve, together with established working groups. Equally

important are cooperation with partners, the establishment of rules for implementation and coordination, and compliance with commitments and responsibilities by stakeholders and national institutions and organisations. During implementation, attention should also be paid to managing potential risks, managing the process of achieving the measures and objectives, for example through the aforementioned Gantt chart, and managing all established partnerships and projects. During implementation, we recommend following the planned coordination mechanism, holding regular meetings with all relevant stakeholders and entities to review progress towards achieving the objectives, and preparing interim reports. We also recommend creating supporting tools, such as a shared platform or cloud-based solution, to facilitate efficient work and provide access to up-to-date information anywhere and at any time.

7. Review, Monitoring and Evaluation of Strategies and Strategy Implementation Measures

The review, monitoring and evaluation of the strategy and its implementation measures should be carried out regularly and on a mandatory basis. Review and monitoring should be based on tracking outputs and measurable indicators or other evaluation methods that show whether a measure or objective has been achieved. Indicators and evaluation methods may take different forms; what is important is to reach a conclusion as to whether the measure has been successfully implemented or whether it is necessary to return to this step. Strategic planning should retain a learning process whereby, on the basis of a report or assessment, we revisit previous steps and update the plan accordingly. We recommend annual reporting on the implementation of measures and objectives planned for a specific year, following the examples of the Maasheggen Biosphere Reserve in the Netherlands and the Kristianstad Vattenrike Biosphere Reserve in Sweden, or preparing an annual review, as in the case of the Mont Ventoux Biosphere Reserve in France. We also recommend more in-depth, multi-level monitoring over a period of 3–5 years, which should assess the impacts of individual measures as well as the overall activities of the biosphere reserve. An example of an ideal strategic planning cycle is provided by the Thuringian Forest Biosphere Reserve in Germany, where the evaluation process is divided into three continuously recurring phases: design/planning, adequacy/suitability, and implementation; see Figure 20. At this stage, it is equally important to ensure the appropriate involvement of stakeholders and the use of suitable participatory tools.

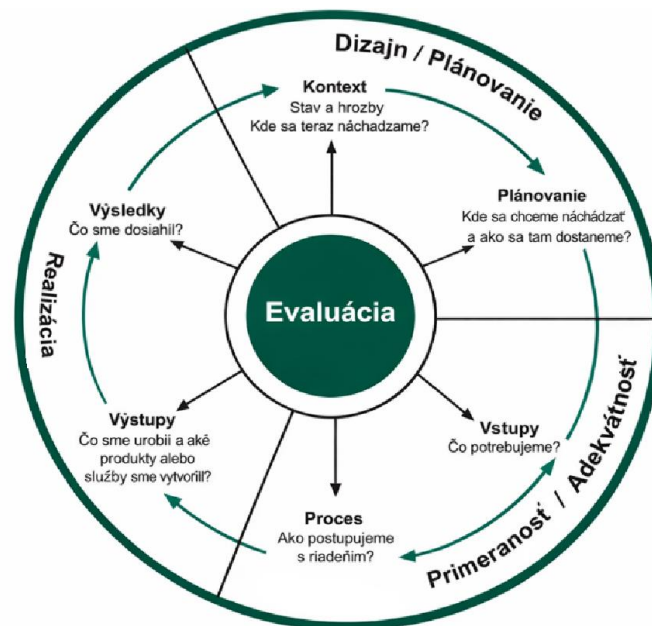


Figure 20 Example of the Planning Cycle of the Thuringian Forest Biosphere Reserve in Germany

Source: Translation of the original figure from the biosphere reserve plan using the AI tool ChatGPT

4. THEORETICAL AND PRACTICAL CONTRIBUTIONS OF THE DISSERTATION

Given the relevance of the issue addressed and the fact that strategic planning for the development of biosphere reserves represents an under-researched yet necessary approach worldwide, the dissertation makes significant contributions at both the theoretical and practical levels. We contribute to broadening the theoretical and practical understanding of, and the current approach to, strategic planning for specific types of territories that combine strict conservation rules with activities aimed at harnessing their development potential. The dissertation addresses an identified research gap concerning the insufficient theoretical development of strategic planning for biosphere reserve development in the context of sustainable development and participatory territorial governance, as well as the absence of its systematic application as a tool for implementing sustainable development under the real-world conditions of biosphere reserves.

The theoretical contributions of the dissertation can be identified primarily in the elaboration of the theoretical foundations of the issue under investigation and in the systematisation of the definition of a biosphere reserve as an object of development and strategic development planning based on a participatory approach and its specific characteristics in the context of the requirements of the UNESCO Man and the Biosphere Programme and Slovak legislation. The main theoretical contributions of the dissertation include:

- defining the biosphere reserve as an object of sustainable development that integrates the environmental, social and economic aspects of territorial development,
- systematisation and comparison of theoretical approaches to the development of biosphere reserves based on public goods theory, regional development theory, endogenous growth theory, learning regions theory, management theory, and public participation theory,
- defining strategic planning for the development of biosphere reserves as a comprehensive approach to managing territorial development based on the principles of sustainability and participatory governance,
- identifying the specific characteristics of strategic planning for biosphere reserves arising from the requirements of the UNESCO Man and the Biosphere Programme and the legislative framework of the Slovak Republic,

- defining the importance of the endogenous potential of a territory as a factor in strategic planning for the development of biosphere reserves,
- theoretical conceptualisation of biosphere reserves as model territories for implementing the principles of the 2030 Agenda and the Sustainable Development Goals at the local and regional levels,
- elaborating the relationships between strategic planning, territorial management, and public policy-making in the context of biosphere reserve development,
- formulating a conceptual framework for strategic planning for the development of biosphere reserves based on the phases of the strategic planning process.

The theoretical analysis of the issue also highlights the need for systematic research into the strategic management of biosphere reserves and provides a theoretical basis for further scientific research in the fields of sustainable territorial development, protected area management, regional development, and the implementation of participatory approaches in strategic planning for territorial development.

In view of the relevance of the issue under investigation and the insufficient methodological framework for strategic planning for the development of biosphere reserves, the dissertation also makes significant practical contributions. The practical contributions of the dissertation are based primarily on an analysis of the current state of strategic planning for biosphere reserve development in the Slovak Republic and across Europe, the research conducted, a comparison of the research findings with the theoretical foundations, and the development of a methodological procedure and recommendations for implementing strategic planning for their development. The practical contributions of the dissertation draw on the results of primary and secondary research aimed at assessing the status of biosphere reserves, planning for their development, the quality of life of biosphere reserve residents, the functioning and cooperation of stakeholders, the tourism offer of biosphere reserves, as well as an analysis of biosphere reserve plans in the Slovak Republic and across Europe. A distinctive practical contribution of the dissertation is the proposed methodology for strategic planning for the development of biosphere reserves, which is based on theoretical foundations, the results of the research conducted, and an analysis of international examples of good practice. The main practical contributions of the dissertation include:

- assessing the current state of strategic planning for the development of biosphere reserves in Slovakia and identifying the main problems and shortcomings in their management and development,

- analysing strategic planning for the development of biosphere reserves across Europe and identifying examples of good practice applicable in the conditions of the Slovak Republic,
- assessing the quality of life of local residents in the biosphere reserves of the Slovak Republic and identifying the factors influencing their development,
- assessing the cooperation and functioning of biosphere reserves in the Slovak Republic from the stakeholders' perspective and identifying the importance of stakeholder participation in the management and development planning of biosphere reserves,
- assessing the tourism offer of biosphere reserves in the Slovak Republic and identifying the development potential of these territories in terms of tourism and regional development,
- analysing the strategic documents of biosphere reserves in the Slovak Republic and across Europe and identifying challenges in the field of territorial development planning,
- proposing a methodological procedure for strategic planning for the development of biosphere reserves, providing systematic guidance for the preparation of a strategic development plan for biosphere reserves,
- proposing recommendations for the implementation of strategic planning for the development of biosphere reserves,
- formulating recommendations for stakeholder involvement in the planning and management of biosphere reserves,
- formulating recommendations for evaluating the planning of biosphere reserves,
- pilot testing of the methodology in the Poľana Biosphere Reserve, resulting in the development of an actual strategic document as an output of the APVV-20-0108 project Implementing the 2030 Agenda through Biosphere Reserves.

The results of the dissertation are particularly applicable to biosphere reserve management, public administration authorities, public policy makers, regional development institutions, as well as professionals dealing with sustainable territorial development. The outputs of the dissertation can also be used in the educational process in teaching subjects focused on regional development, strategic planning, public economics, and territorial management. The dissertation also provides a basis for further research focusing on strategic planning for the development of protected areas, participatory territorial development planning, and the practical implementation of sustainable development principles. The dissertation may also serve as a scientific and inspirational document for UNESCO Headquarters, supporting the implementation of strategic planning, providing an objective

assessment of the state of Slovak and European biosphere reserves, and serving as a tool for improving their management.

The outputs of the dissertation have been published in several international and Slovak academic journals, monographs, and conference proceedings and presented at national and international conferences. The results of the dissertation build on and complement the findings of the research project APVV-20-0108 Implementing the 2030 Agenda through Biosphere Reserves and extend them through an independent analysis of strategic planning for the development of biosphere reserves in the Slovak Republic, conducted through interviews with representatives at the national level and from the perspective of biosphere reserve managers in the Slovak Republic; additional data collection within the primary research through questionnaire surveys among residents, tourists, and stakeholders of biosphere reserves in the Slovak Republic; and, in particular, an independent analysis of biosphere reserve plans in the Slovak Republic and an analysis of strategic planning for the development of biosphere reserves across Europe based on primary and secondary data. The research presented in the dissertation is aligned with the research priorities of the Faculty of Economics at Matej Bel University in Banská Bystrica – Innovative and Sustainable Development of Territorial Units.

STRATEGIC PLANNING FOR THE DEVELOPMENT OF BIOSPHERE RESERVES

Strategic planning for the development of biosphere reserves is a relatively unexplored but, according to many authors, necessary approach that should be based on planning all aspects of the territory (economic, social, and environmental) with the aim of sustainable development and should be achieved through a participatory approach to management. The current state of planning, understanding, and recognition of the concept of biosphere reserves is a challenge for the application of this innovative approach. (e.g., Yazdandoost, 2019; Van Cuong, Dart, Hockings, 2017; Job, Becken, Lane, 2020; Sisto, Fernández-Portillo, Yazdani, Estepa-Mohedano, Torkayesh, 2022)

The dissertation consists of several interrelated chapters. In the first chapter, based on an analysis of scientific and academic literature from domestic and foreign bibliographic sources, we defined the theoretical foundations of biosphere reserves, strategic planning for their development and participatory management, and the specifics of planning the development of biosphere reserves in the context of the requirements of the UNESCO Man and Biosphere Program and Slovak legislation. Based on the theoretical foundations and identification of the current state, in the second chapter we set the main objective, partial objectives, and research questions. We identified the object, subject, material, and methods of research.

The main objective (**O₀**) was to examine the current state of strategic planning for the development of biosphere reserves in Slovakia and on the European continent based on a theoretical foundation of the concept of biosphere reserves and current approaches to their management and development planning, and to create a methodology for strategic planning development of biosphere reserves and recommendations for its implementation. We achieved the main objective of the dissertation through five partial objectives:

O₁: Define and identify specific strategic planning for the development of biosphere reserves based on theoretical approaches in professional and scientific literature and the requirements of the UNESCO Man and Biosphere Program.

O₂: To examine the current state of strategic planning in biosphere reserves in the Slovak Republic with a view to identifying the individual development potential of biosphere reserves, assessing the quality of life in them, their functioning, and cooperation with stakeholders.

O₃: To examine the current state of strategic planning in biosphere reserves on the European continent with a view to identifying examples of good practice in assessing the potential of biosphere reserve areas, evaluating the quality of life in them, and functioning and cooperation with stakeholders.

O₄: Compare selected issues/challenges in the field of strategic planning in biosphere reserves on the European continent with biosphere reserves in the Slovak Republic.

O₅: Develop a draft methodology for strategic planning of biosphere reserves and recommendations for its implementation based on the results of the analysis and examples of good practice from abroad.

In line with the defined partial objectives, the dissertation examined seven research questions. The main objective, partial objectives, and research questions of the dissertation were achieved through the implementation of several primary and secondary research activities. The results of the analyses were presented in the third chapter of the dissertation. The data were analysed using various mathematical and statistical methods.

Partial objective **O₁** was fulfilled through the elaboration of the first chapter of the submitted dissertation. Based on theoretical postulates, we identified a research gap and answered research question **RQ₁** by defining the specific characteristics of strategic planning for the development of biosphere reserves.

Partial objective **O₂** was fulfilled through three research questions based on structured interviews examining the perception of the status of biosphere reserves and the planning of their development at the national level, as well as from the perspective of biosphere reserve managers in the Slovak Republic, and through outputs from meetings and workshops of the APVV-20-0108 project Implementing Agenda 2030 through Biosphere Reserves. This objective was also fulfilled through questionnaire surveys focused on the assessment of quality of life in biosphere reserves in the Slovak Republic by their residents, the evaluation of cooperation and functioning of biosphere reserves in the Slovak Republic by their stakeholders, and the evaluation of the offer of biosphere reserves in the Slovak Republic by tourists. Based on the findings, we answered research question **RQ₂**, which examined how biosphere reserves in the Slovak Republic apply a strategic planning approach in their development. The results indicate that strategic planning for the development of biosphere reserves is not applied under current conditions. We also found that planning in biosphere reserves does not focus on all development potentials and aspects; natural and geographical planning dominates over the socio-economic approach. In biosphere reserves in the Slovak Republic, development planning does not address socio-economic planning, with the

exception of the Poľana Biosphere Reserve. Based on the results, we also answered research question **RQ₃**, which examined how a participatory approach to strategic development planning is ensured in the practice of biosphere reserves in the Slovak Republic. The results indicate that the level of ensuring a participatory approach to strategic planning in biosphere reserves in the Slovak Republic is low. Research question **RQ₄**, which examined whether the published plans of biosphere reserves in the Slovak Republic were prepared in accordance with and meet the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme, was addressed through an analysis of biosphere reserve plans in the Slovak Republic. Based on the evaluation results, we found that these plans rather do not reflect the recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme. By answering research questions **RQ₂**, **RQ₃**, and **RQ₄**, partial objective **O₂** was fulfilled.

Partial objective **O₃** was fulfilled through three research questions based on an analysis of strategic planning for the development of biosphere reserves on the European continent. Research question **RQ₅**, which examined how strategic planning for the development of biosphere reserves located on the European continent is implemented in practice, and research question **RQ₆**, which examined how a participatory approach to strategic planning is implemented in foreign biosphere reserves located on the European continent, were answered through a primary analysis using a questionnaire survey. The results indicate that strategic development planning and participatory strategic planning are applied to a greater extent in foreign biosphere reserves on the European continent than under Slovak conditions; however, there are still many biosphere reserves where these approaches are applied to a low degree or not at all. Research question **RQ₇**, which examined whether the published plans of biosphere reserves located on the European continent were prepared in accordance with and meet the requirements and recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme, was answered through a secondary analysis of biosphere reserve plans on the European continent. Based on the evaluation results, we found that these plans tend to reflect the recommendations of the Technical Guidelines for Biosphere Reserves of the UNESCO Man and the Biosphere Programme. By answering research questions **RQ₅**, **RQ₆**, and **RQ₇**, partial objective **O₃** was fulfilled.

Based on the findings from partial objectives **O₂** and **O₃**, partial objective **O₄** was fulfilled, within which we compared selected problems and challenges in the field of strategic planning in biosphere reserves on the European continent with those in biosphere reserves in the Slovak Republic. Based on the results, we can state that the issue and application of

participatory strategic planning for the development of biosphere reserves are on average more developed and supported abroad; however, even there, shortcomings in socio-economic planning are observed in many cases. Strategic planning for the development of biosphere reserves in the Slovak Republic is also affected by the absence of a nationally implemented long-term strategy, weak institutional and legislative anchoring, insufficient integration of participation in governance, unclear division of competencies, and a strong dominance of natural and geographical planning. In biosphere reserves on the European continent, planning is perceived as a core competence. Biosphere reserves in the Slovak Republic face a lack of systemic financing, while biosphere reserves on the European continent more often face an overall shortage of financial resources.

Partial objective **O₅** was fulfilled through the findings of all previous partial objectives. A proposed methodology for the strategic planning of biosphere reserves and recommendations for its implementation, based on the results of the analyses and examples of good practice from abroad, are presented in the third chapter. The contributions of the dissertation are presented in the fourth chapter and consist mainly of the elaboration of theoretical foundations, the implementation of several analyses domestically and abroad, and the identification of good practice examples from abroad, on the basis of which a methodology for strategic planning of biosphere reserve development was developed. The methodology may be particularly beneficial for biosphere reserve management, public administration authorities, public policy makers, regional development institutions, as well as for the academic and professional community dealing with sustainable territorial development. The proposed methodology combines the findings and outputs of the APVV-20-0108 project, Implementing the 2030 Agenda through Biosphere Reserves, and supplements them with our own insights and recommendations derived from the research conducted.

Although this dissertation has its limitations, stemming from the geographical focus of the research, the situational analysis, and methodological challenges in data collection (e.g., the subjectivity of respondents' answers, the difficulty of recruiting respondents, etc.), its elaboration and findings are original and unique in the Slovak context. No similar research has been conducted in our conditions, yet precisely through the identified limitations, it offers scope for further development of the issue, e.g., in the field of environmental studies or regenerative agriculture. It also offers scope for further and deeper research and improvement, as well as further testing and development of the proposed strategic planning methodology.

Based on the results and outputs of the dissertation research, we can state that all research questions were answered and the main objective as well as all partial objectives were

achieved. The results confirmed the importance of strategic planning for the development of all aspects of biosphere reserves, which should be based on a participatory governance approach. The current situation in the Slovak Republic and on the European continent confirms the challenge of applying this approach.

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Prílohy

Príloha 1 Pozitívne externality dané existenciou biosférických rezervácií

Pozitívna externalita	Autori potvrdzujúci existenciu pozitívnej externality
Posilnenie odolnosti, postavenia a možností miestnej komunity a jej prepojenosti s územím	De Lucio, Seijo, 2021; Schultz, Lundholm, 2013; Holmes, 2014; Reed, Price, 2020; Mondino, Beery, 2019; Cheng, Sims, Yi, 2023; Bires, Raj, 2020; Bocci, Fortmann, Sohngen, Milian, 2018; Wang, Liu, Innes, 2019; Kratzer, Mainetti, Unthan, 2022; Ferreira, Zimmermann, Santos, Henrik, 2020; Vaňová, Vitálišová, Rojíková, Škvareninová, 2023; Vitálišová, Vavrúšová, 2023; Schüttler, Mackenzie, Muñoz-Petersen, 2023; Thao, Eales, Lam, Hien, Garside, 2023; Ibrahimov, Sadullayev, 2022; Azadi, Van Passel, Cools, 2021
Podpora infraštruktúry v území	Cheng, Sims, Yi, 2023; Bires, Raj, 2020; Vitálišová, Vavrúšová, 2023; Thao, Eales, Lam, Hien, Garside, 2023
Zvýšenie povedomia o hodnotách BR a iných poznatkoch	De Lucio, Seijo, 2021; Kratzer, Ammering, 2019; Ferreira, Zimmermann, Santos, Henrik, 2020; Schultz, West, Bourke, d'Armengol, Torrents, Hardardottir, Jansson, Roldán, 2018; Schüttler, Mackenzie, Muñoz-Petersen, 2023; Benhsain, Salhi, 2023; Ibrahimov, Sadullayev, 2022
Podpora udržateľného rozvoja územia	Geels, Schot, 2010; Persson, Johansson, Olsson, 2018; Batisse, 1997; Ishwaran, Persic, Tri, 2008; Ishwaran, 2012; König, Uthes, Ostermann-Miyashita, Eufemia, Hemminger, Hermanns, Bethwell, Stachow, Helming, 2022; Vitálišová, Vavrúšová, 2023; Reed, Price, 2020; Bridgewater, 2002; UNESCO, 1996; UNESCO, 2015; Stoll-Kleemann, 2005; Schultz, Duit, Folke, 2011; Cheng, Sims, Yi, 2023; Vitálišová, Vavrúšová, Piscová, 2023; Kratzer, Mainetti, Unthan, 2022; Kratzer, Ammering, 2019; Brenner, Mayer, Stadler, 2016; Vaňová, Vitálišová, Rojíková, Škvareninová, 2023; Price, Schaaf, Cárdenas, Pisa, Köck, 2024; Benhsain, Salhi, 2023; Ibrahimov, Sadullayev, 2022
Zvýšenie počtu pracovných miest	Kedward, zu Ermgassen, Ryan-Collins, Wunder, 2022; Cheng, Sims, Yi, 2023; Vitálišová, Vavrúšová, Piscová, 2023;

	Vitálišová, Vavrúšová, 2023; Ferreira, Zimmermann, Santos, Henrik, 2020
Posilnenie ochrany biodiverzity a ekologickej a klimateckej odolnosti	Hein, 2011; Schultz, Lundholm, 2013; Cheng, Sims, Yi, 2023; Wang, Liu, Innes, 2019; Ishwaran, Persic, Tri, 2008; Brenner, Job, 2012; Coetzer, Witkowski, Erasmus, 2013; Kratzer, Ammering, 2019; Haq, 2016; Ferreira, Zimmermann, Santos, Henrik, 2020; Auliz-Ortiz, Benítez-Malvido, Arroyo-Rodríguez, Dirzo, Pérez-Farrera, Luna-Reyes, ... , Martínez-Ramos, 2024; Schüttler, Mackenzie, Muñoz-Petersen, 2023; Benhsain, Salhi, 2023; Thao, Eales, Lam, Hien, Garside, 2023; Ibrahimov, Sadullayev, 2022; Azadi, Van Passel, Cools, 2021
Posilnenie odolnosti ekonomiky	Kedward, zu Ermgassen, Ryan-Collins, Wunder, 2022; Stoll-Kleemann, 2005; Schultz, Duit, Folke, 2011; Knaus, Bonnelame, Siegrist, 2017; Cheng, Sims, Yi, 2023; Bires, Raj, 2020; Wang, Liu, Innes, 2019; Vitálišová, Vavrúšová, 2023; Kratzer, Ammering, 2019; Haq, 2016; Brenner, Mayer, Stadler, 2016; Vitálišová, Vavrúšová, Piscová, 2023; Ferreira, Zimmermann, Santos, Henrik, 2020; Vaňová, Vitálišová, Rojíková, Škvareninová, 2023; Merlin, Kraus, 2016
Posilnenie participácie v území	Bocci, Fortmann, Sohngen, Milian, 2018; Stoll-Kleemann, 2005; Kratzer, Mainetti, Unthan, 2022; Schultz, Duit, Folke, 2011; Price, Schaaf, Cárdenas, Pisa, Köck, 2024; Benhsain, Salhi, 2023
Podpora riadenia a plánovania územia	Stoll-Kleemann, 2005; Schultz, Duit, Folke, 2011; Ferreira, Zimmermann, Santos, Henrik, 2020; Thao, Eales, Lam, Hien, Garside, 2023; Azadi, Van Passel, Cools, 2021
Podpora inovácií	Kratzer, Mainetti, Unthan, 2022; Kratzer, Ammering, 2019; Benhsain, Salhi, 2023; Ibrahimov, Sadullayev, 2022
Posilnenie možností pre oddych, zníženie stresu a zdravie	Arnberger, Eder, Alex, Hutter, Wallner, Bauer, Zaller, Frank, 2018; Vitálišová, Vavrúšová, 2023; Thao, Eales, Lam, Hien, Garside, 2023; Vitálišová, Vavrúšová, Piscová, 2023

Zdroj: vlastné spracovanie

Príloha 2 Strategické plánovanie rozvoja biosférických rezervácií, otázky pre respondentov z národných/nadnárodných inštitúcií

1. Ako vnímate biosférické rezervácie? Vedeli by ste ich charakterizovať?
2. V čom vnímate význam BR? Len ako medzinárodnú značku územia alebo ako udržateľný prístup k životu v území a jeho rozvoju?
3. Akými aktivitami zo strany Vášho ministerstva tento prístup podporujete?
4. Na Slovensku biosférické rezervácie nie sú plne integrované do legislatívy. Vnímate to ako problém? Ak áno, prečo? Ak nie prečo?
5. V súčasnosti nie je v legislatívne určená jednoznačná zodpovednosť za spravovanie biosférických rezervácií. Kto teda plní úlohy v riadení biosférických rezervácií a na základe akého titulu?
6. Považujete za potrebné, aby biosférické rezervácie získali určitú právnu formu? Ak áno, prečo? Ak nie, prečo?
7. Aké úlohy plnia biosférické rezervácie?
8. Aké kompetencie podľa Vás majú a mali mať biosférické rezervácie?
9. Koľko zamestnancov je zodpovedných za riešenie agendy biosférických rezervácií?
10. Koľko zamestnancov by malo byť zodpovedných za agendu biosférickej rezervácie a na akej úrovni (národnej, regionálnej, lokálnej) ?
11. Podľa našich výskumov je participatívne riadená len BR Poľana, čiastočne Slovenský kras. Avšak, mimo BR Poľana slovenské biosférické rezervácie nemajú ani funkčné orgány a venujú sa problematike rozvoja BR len okrajovo. Čo je dôvodom tohto stavu?
12. Čo by podľa Vás pomohlo zmeniť túto situáciu?
13. Čo by podľa Vás pomohlo k tomu, aby biosférické rezervácie začali byť spravované participatívne a otvorene?
14. Myslíte si, že by biosférické rezervácie svojou existenciou a aktivitami prispievajú k plneniu Agendy 2030? Považujete toto prispievanie za významné/dôležité? Ako prispievajú?
15. Technické smernice UNESCO rozlišujú ako dokumenty BR – manažmentový plán, business plan, akčný plán, komunikačnú a marketingovú stratégiu BR. Slovenské BR prevažnú časť z nich vôbec nemajú, prípadne sú zastaralé. Aký je teda prístup SR k spravovaniu týchto území?
16. V našich podmienkach nie je uplatňované komplexné strategické plánovanie rozvoja biosférických rezervácií. BR majú (ak majú) spracovaný len akčný plán. Zameriava sa prioritne na environmentálny rozvoj a abstrahuje sa do určitej miery od socio-ekonomického rozvoja. Viete nám uviesť dôvody prečo?
17. Čo by pomohlo v riešení tohto problému?
18. Aké konkrétne ohrozenia a slabé stránky vnímate v aktuálnom plánovacom procese v biosférických rezerváciách?
19. Aké konkrétne ohrozenia a slabé stránky vnímate v rozvoji biosférických rezervácií v SR?
20. Máte vedomosť o iných plánoch ktoré sa dotýkajú plánovania rozvoja biosférickej rezervácie?
 - a. Dotýka sa niektorý z plánov plánovania socio-ekonomického potenciálu biosférických rezervácií?
21. Je podľa Vás interné periodické hodnotenie postačujúce pre hodnotenie rozvoja BR?
 - a. Ak nie, ako často by podľa Vás malo prebiehať?
22. Mali by byť podľa Vás manažmentové a strategické plány biosférických rezervácií dostupné verejnosti?
23. Mali by byť manažmentové a strategické plány rozvoja BR odlišnými plánmi od strategických plánov národných parkov a CHKO Poľany?
24. Vnímate priestor v rámci biosférických rezervácií na realizáciu fundraisingových aktivít?
25. V súčasnosti neexistuje systém financovania aktivít z titulu existencie biosférickej rezervácie. Prečo?
26. Vidíte priestor na to, aby sa táto situácia zmenila? Ak áno, ako? Ak nie, prečo?

27. Mali by mať biosférické rezervácie kooperatívny finančný mechanizmus schválený/koordinovaný viacerými stakeholdermi?
28. Zo 4 slovenských BR, sa výraznejšie prezentuje ako BR len Poľana. V ostatných troch BR je dominantnejšie postavenie národného parku, s ktorým sa BR prekrýva. Evokuje je to nedostatočné využitie potenciálu tejto medzinárodnej značky. Neexistuje z národnej úrovne usmernenie, ako by mali BR túto značku využívať a prezentovať?
29. Uvítali by ste, keby existoval manuál pre využívanie značky BR v podmienkach SR?
30. Odporučili by ste, aby biosférické rezervácie mali špecifický komunikačný plán?
31. Mala by mať podľa Vás každá biosférická rezervácia jednotné logo a vizuál značky vo svojom marketingu?

Zdroj: vlastné spracovanie

Príloha 3 Strategické plánovanie rozvoja biosférických rezervácií, otázky pre manažerov biosférických rezervácií na území Slovenskej republiky

1. Na Slovensku biosférické rezervácie nie sú plne integrované do legislatívy. Vnímate to ako problém?
2. Akú právnu formu by podľa Vás biosférické rezervácie mali zastávať?
3. Aké kompetencie by podľa Vás mali mať biosférické rezervácie?
4. Koľko zamestnancov by malo byť zodpovedných iba za agendu biosférickej rezervácie?
5. Je podľa Vás dôležité spravovať biosférickú rezerváciu participatívne?
 - a. Ak áno, akí stakeholderi sú podľa Vás kľúčoví?
6. Mal by byť proces participatívneho spravovania otvorený?
7. Myslíte si, že by biosférické rezervácie svojou existenciou a aktivitami mali/mohli prispievať k plneniu Agendy 2030? Považujete toto prispievanie za významné/dôležité?
8. Je v našich podmienkach uplatňované strategické plánovanie rozvoja biosférických rezervácií?
 - a. Ak áno, v čom spočíva, aký je jeho obsah?
 - b. Na koľko rokov je toto plánovanie?
 - c. Kto je jeho autorom?
 - d. Ktorí stakeholderi sú pre Vás kľúčoví v rôznych fázach strategického plánovania rozvoja biosférickej rezervácie?
 - e. Ktoré nástroje participatívneho spravovania sú pre Vás kľúčové v rôznych fázach strategického plánovania rozvoja biosférickej rezervácie?
 - f. Ktoré nástroje participatívneho spravovania sú pre Vás kľúčové s rôznymi stakeholdermi v rámci strategického plánovania rozvoja biosférickej rezervácie?
9. Považujete za dôležité strategicky plánovať rozvoj biosférických rezervácií?
10. Aké konkrétne ohrozenia a slabé stránky vnímate v aktuálnom plánovacom procese v biosférických rezerváciách?
11. Máte vedomosť o iných plánoch ktoré sa dotýkajú plánovania rozvoja biosférickej rezervácie?
 - a. Dotýka sa niektorý z plánov plánovania socio-ekonomického potenciálu biosférických rezervácií?
12. Je podľa Vás interné periodické hodnotenie postačujúce?
 - a. Ak nie, ako často by podľa Vás malo prebiehať?
13. Mali by byť podľa Vás manažmentové a strategické plány biosférických rezervácií dostupné verejnosti?
14. Mali by mať biosférické rezervácie biznis plán a fundraising stratégiu?

15. Mali by mať biosférické rezervácie kooperatívny finančný mechanizmus schválený/
koordinovaný viacerými stakeholdermi?
16. Mali by mať podľa Vás biosférické rezervácie špecifický komunikačný plán?
17. Mala by mať podľa Vás každá biosférická rezervácia jednotné logo a vizuál značky vo svojom marketingu?

Zdroj: vlastné spracovanie

Príloha 4 Dotazníky v analýze hodnotenia kvality života v biosférických rezerváciách na území Slovenskej republiky ich obyvateľmi

DOTAZNÍK obyvateľia Biosférická rezervácia Poľana

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie kvality života na území Biosférickej rezervácie Poľana [1], ktorá je súčasťou UNESCO Programu Človek a biosféra. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia.

Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu APVV [2],

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

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[1] Biosférickú rezerváciu tvoria územia v rámci obcí a miest: Detva; Hriňová; Dúbravy; Očová; Hrochoť; Poniky; Strelníky; Lubietová; Hronec; Čierny Balog; Sihla; Valaská; Povrazník; Kriváň; Korytárky; Víglaš; Čerín; Osrblie; Lom nad Rimavicou.

[2] Prieskum je súčasťou projektu APVV-20-0108 Implementácia Agendy 2030 prostredníctvom biosférických rezervácií.

1. Viete o tom, že žijete v Biosférickej rezervácii Poľana?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Poľana?

3. Skutočnosť, že žijete v biosférickej rezervácii, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Poľana?

5. Čo vnímate ako najväčšiu výhodu života v Biosférickej rezervácii Poľana?

6. Viete o tom, že Biosférická rezervácia Poľana patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Bývate:

☐ vo vlastnej nehnuteľnosti

☐ v prenájme

☐ v tzv. viacgeneračnej nehnuteľnosti (napr. s rodičmi)

Ide o:

☐ byt v bytovom dome

☐ rodinný dom v obci/meste

☐ usadlosť na lazoch

☐ farma

☐

iné:.....

9. Ako hodnotíte jednotlivé oblasti života v území Biosférickej rezervácie Poľana?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	neviem sa vyjadriť, nevyužívam	Ak ste uviedli, že ste nespokojný, napíšte prečo?
Pracovné príležitosti							
Možnosti podnikania							
Nákupné možnosti							
Zachovávanie tradícií, remesiel, folklóru							
Kultúrne vyžitie							
Verejné stravovanie							
Športové možnosti							
Sociálne služby							
Zdravotnícke služby							
Možnosti vzdelávania							
Programy v oblasti ochrany životného prostredia a prírody							
Lekáreň							
Bankomat							

Verejné priestranstvá a zeleň							
Medziľudské vzťahy							
Separáciu odpadu							
Vzťahy starousadlíkov s novousadlíkmi							
Angažovanosť obyvateľov vo verejnom živote							
Možnosti pre bývanie, výstavbu domov, bytov							
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)							
Možnosti agrotistiky							
Využívanie obnoviteľných zdrojov energie							
Ochrana kultúrno-historických pamiatok							
Práca volených predstaviteľov miest a obcí							
Informácie o dianí v území							
Spolupráca aktérov v území							
Bezpečnosť							
Kvalita ciest a chodníkov							
Kvalita internetového pokrytia							
Frekvencia spojov medzi obcami a do miest							
Dostupnosť územia autobusom							
Dostupnosť územia vlakom							
Kvalita životného prostredia							
Opatrenia zamerané na ochranu životného prostredia a prírody							
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)							
Organizácia nových podujatí							
Propagácia regiónu							
Informácie o prírodných a kultúrno-historických hodnotách územia							

10. Čo vnímate ako priority rozvoja v území Biosférickej rezervácie Poľana? (označte 3 najdôležitejšie)

- ☐ rekonštrukcia ciest a chodníkov
- ☐ rekonštrukcia vodovodných a kanalizačných systémov
- ☐ bytová výstavba s ohľadom na únosnosť územia
- ☐ rozvoj zdravotných služieb
- ☐ rozvoj služieb v oblasti vzdelávania a výchovy
- ☐ rozvoj sociálnych služieb
- ☐ spoločenský a kultúrny život
- ☐ budovanie športovísk
- ☐ ochrana životného prostredia

- ☐ podpora zamestnanosti v poľnohospodárstve
- ☐ podpora zamestnanosti v tradičných remeslách charakteristických pre toto územie
- ☐ rozvoj cestovného ruchu
- ☐ budovanie cyklotrás
- ☐ iné:

11. Odkiaľ čerpáte informácie o biosférickej rezervácii (označte aj viac odpovedí):

- ☐ webové stránky miest, obcí
- ☐ webová stránka chránenej krajiny/ národného parku
- ☐ osobné stretnutia so zamestnancami biosférickej rezervácie
- ☐ z miestnych médií (noviny, rozhlas, televízia)
- ☐ z celoštátnych médií (noviny, rozhlas, televízia)
- ☐ z organizovaných akcií biosférickej rezervácie
- ☐ sociálne siete miest, obcí
- ☐ sociálna sieť chránenej krajiny/národného parku
- ☐ úradné tabule v obciach/mestách
- ☐ od známych a rodiny
- ☐ od starostu a poslancov
- ☐ iné:

12. Ako vnímate rozvoj cestovného ruchu?

- ☐ turisti/návštevníci sú pre nás prínosom
- ☐ turisti spôsobujú problémy
- ☐ je tu málo turistov/návštevníkov
- ☐ je tu veľa turistov/návštevníkov
- ☐ nesledujem to, je mi to jedno

13. Aký je Váš najvyužívanejší spôsob mobility v území?

- ☐ autom
- ☐ autobusová doprava
- ☐ pešo
- ☐ železničná doprava
- ☐ bicyklom
- ☐ iné:

14. Koľko rokov bývate v obci?

15. Vo Vašej domácnosti využívate:

- zdroj vody:

- ☐ obecný vodovod
- ☐ vlastná studňa
- ☐ iné:

- spôsob kúrenia:

- ☐ plynové kúrenie
- ☐ elektrické
- ☐ tuhé palivá (drevo, drevné peletky, uhlie ...)
- ☐ iné:

- alternatívne zdroje energie:

- ☐ fotovoltaičné panely
- ☐ solárne kolektory
- ☐ geotermálna energia
- ☐ tepelné čerpadlo
- ☐ iné:

- riešenie odpadových vôd:

- ☐ verejná kanalizácia
- ☐ malá domová čistiareň
- ☐ vodotesná žumpa
- ☐ koreňová čistiareň
- ☐ iné:

- **bazén** ☐ áno

☐ nie

16. Existenciu Chránenej krajinej oblasti Poľana vnímate ako:

- ☐ bariéru rozvoja územia
☐ príležitosť pre rozvoj územia
☐ neviem sa vyjadriť

Prosím, odôvodnite Vašu odpoveď:.....

17. Viete o tom, že Biosférickú rezerváciu Poľana manažuje Koordinačná rada BR Poľana, ktorá je zložená z dôležitých zainteresovaných skupín z regiónu?

☐ Áno

☐ Nie

18. Poznáte stanovky a ciele Koordinačnej rady BR Poľana?

☐ Áno

☐ Nie

19. Chceli by ste sa stať členom Koordinačnej rady BR Poľana?

☐ Áno (uveďte prosím na Vás kontakt):

☐ Nie

20. Pohlavie: ☐ Žena ☐ Muž

21. Vek:

☐ < 18

☐ 19 – 30

☐ 31 - 40

☐ 41 - 50

☐ 51 – 60

☐ 61 +

22. Koľko osôb žije vo Vašej domácnosti ?

23. Dosiahnuté vzdelanie:

☐ bez základného vzdelania

☐ stredoškolské vzdelanie

☐ vysokoškolské

☐ základné

☐ úplné stredoškolské vzdelanie

24. Ste:

☐ zamestnaný/á

☐ SZČO

☐ študent/študentka

☐ nezamestnaný/á

☐ dôchodca/dôchodkyňa

☐ na otcovskej/materej/rodičovskej dovolenke

Ak ste SZČO, alebo zamestnaný, uveďte v akom odvetví:

☐ priemysel

☐ poľnohospodárstvo

☐ lesné hospodárstvo

☐ stavebníctvo

☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)

☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

25. Bývate, príp. pracujete v obci alebo meste:

- ☐ Detva
- ☐ Hriňová
- ☐ Dúbravy
- ☐ Očová
- ☐ Hrochot'
- ☐ Poniky
- ☐ Strelníky
- ☐ Ľubietová
- ☐ Hronec
- ☐ Čierny Balog
- ☐ Sihla
- ☐ Valaská
- ☐ Povrazník
- ☐ Kriváň
- ☐ Korytárky
- ☐ Vígľaš
- ☐ Čerín
- ☐ Osrblie
- ☐ Lom nad Rimavicou
- ☐ Iná obec mimo hraníc

DOTAZNÍK obyvateľa

Biosférická rezervácia Slovenský kras

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie kvality života obyvateľov na území biosférickej rezervácie Slovenský kras, ktorá je súčasťou UNESCO programu Človek a biosféra. Biosférickú rezerváciu Slovenský kras tvorí územie Národného parku Slovenský kras a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia.

Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu APVV [1],

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

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[1] Prieskum je súčasťou projektu APVV-20-0108 Implementácia Agendy 2030 prostredníctvom biosférických rezervácií.

1. Viete o tom, že žijete v Biosférickej rezervácii Slovenský kras?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Slovenský kras?

3. Skutočnosť, že žijete v biosférickej rezervácii, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Slovenský kras?

5. Čo vnímate ako najväčšiu výhodu života v Biosférickej rezervácii Slovenský kras?

6. Viete o tom, že Biosférická rezervácia Slovenský kras patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Bývate:

☐ vo vlastnej nehnuteľnosti

☐ v prenájme

☐ v tzv. viacgeneračnej nehnuteľnosti (napr. s rodičmi)

Ide o:

☐ byt v bytovom dome

☐ rodinný dom v obci/meste

☐ byt v apartmánovom dome

☐ iné:.....

9. Ako hodnotíte jednotlivé oblasti života v území Biosférickej rezervácie Poľana?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	neviem sa vyjadriť, nevyužívam	Ak ste uviedli, že ste nespokojný, napíšte prečo?
Pracovné príležitosti							
Možnosti podnikania							
Nákupné možnosti							
Zachovávanie tradícií, remesiel, folklóru							
Krajinný ráz územia							
Kultúrne vyžitie							
Verejné stravovanie							
Športové možnosti							
Sociálne služby							
Zdravotnícke služby							
Možnosti vzdelávania							
Aktivity v oblasti ochrany životného prostredia a prírody							
Súčasný manažment starostlivosti o národný park							
Lekáreň							
Bankomat							
Verejné priestranstvá a zeleň							
Separáciu odpadu							
Medziľudské vzťahy							
Vzťahy starousadlíkov s novousadlíkmi							
Angažovanosť obyvateľov vo verejnom živote							

Možnosti pre bývanie, výstavbu domov, bytov							
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)							
Možnosti agroturistiky							
Využívanie obnoviteľných zdrojov energie							
Starostlivosť o kultúrno-historické pamiatky							
Práca volených predstaviteľov miest a obcí							
Informácie o dianí v území							
Spolupráca aktérov v území							
Možnosti parkovania							
Bezpečnosť územia							
Kvalita ciest a chodníkov							
Kvalita internetového pokrytia							
Frekvencia spojov medzi obcami a do miest							
Dostupnosť územia autobusom							
Dostupnosť územia vlakom							
Kvalita životného prostredia							
Opatrenia zamerané na ochranu životného prostredia a prírody							
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)							
Organizácia komerčných podujatí							
Propagácia regiónu							
Informácie o prírodných a kultúrno-historických hodnotách územia							

10. Čo vnímate ako priority rozvoja v území Biosférickej rezervácie Slovenský kras?
(označte 3 najdôležitejšie)

- ☐ rekonštrukcia ciest a chodníkov
- ☐ rekonštrukcia vodovodných a kanalizačných systémov
- ☐ bytová výstavba s ohľadom na únosnosť územia
- ☐ prísnejšia regulácia výstavby v území
- ☐ rozvoj zdravotných služieb
- ☐ rozvoj kúpeľných služieb
- ☐ rozvoj služieb v oblasti vzdelávania a výchovy
- ☐ rozvoj sociálnych služieb
- ☐ spoločenský a kultúrny život
- ☐ budovanie športovísk
- ☐ ochrana životného prostredia
- ☐ podpora zamestnanosti v poľnohospodárstve
- ☐ podpora zamestnanosti v tradičných remeslách charakteristických pre toto územie
- ☐ rozvoj cestovného ruchu

- ☐ budovanie cyklotrás
☐ iné:

11. Ako vnímate rozvoj cestovného ruchu?

- ☐ turisti/návštevníci sú pre nás prínosom pre všestranný rozvoj územia
☐ turisti spôsobujú problémy
☐ je tu málo turistov/návštevníkov
☐ je tu veľa turistov/návštevníkov
☐ nesledujem to, je mi to jedno

12. Odkiaľ čerpáte informácie o biosférickej rezervácii Slovenský kras ?(označte aj viac odpovedí):

- ☐ webové stránky miest, obcí
☐ webová stránka národného parku
☐ osobné stretnutia so zamestnancami biosférickej rezervácie/národného parku
☐ z miestnych médií (noviny, rozhlas, televízia)
☐ z celoštátnych médií (noviny, rozhlas, televízia)
☐ z organizovaných akcií biosférickej rezervácie/národného parku
☐ sociálne siete miest, obcí
☐ sociálna sieť národného parku
☐ úradné tabule v obciach/mestách
☐ od známych a rodiny
☐ od starostu a poslancov
☐ iné:

13. Aký je Váš najvyužívanejší spôsob mobility v území?

- ☐ autom ☐ autobusová doprava ☐ pešo
☐ železničná doprava ☐ bicyklom ☐ iné:

14. Aký zdroj vody využívate vo Vašej domácnosti?

- ☐ verejný/obecný vodovod ☐ vlastná studňa
☐ iné:

15. Aký spôsob vykurovania využívate vo Vašej domácnosti?

- ☐ plynové kúrenie ☐ elektrické
☐ tuhé palivá (drevo, drevné peletky, uhlie ...) ☐ iné:

16. Aké alternatívne zdroje energie využívate vo Vašej domácnosti?

- ☐ fotovoltaické panely ☐ solárne kolektory ☐ geotermálna energia
☐ tepelné čerpadlo ☐ iné:

17. Aké riešenie odpadových vôd využívate vo Vašej domácnosti?

- ☐ verejná kanalizácia ☐ malá domová čistiareň ☐ vodotesná žumpa
☐ koreňová čistiareň ☐ iné:

18. Máte bazén?

☐ áno

☐ nie

19. Vnímate existenciu Národného parku Slovenský kras ako:

- ☐ bariéru rozvoja územia
- ☐ príležitosť pre rozvoj územia
- ☐ neviem sa vyjadriť

Prosím, odôvodnite Vašu odpoveď:.....

20. Pohlavie: ☐ Žena ☐ Muž

21. Vek:

- ☐ < 18
- ☐ 19 – 30
- ☐ 31 - 40

☐ 41 - 50

☐ 51 – 60

☐ 61 +

22. Koľko osôb žije vo Vašej domácnosti ?

23. Dosiahnuté vzdelanie:

- ☐ bez základného vzdelania
- ☐ stredoškolské vzdelanie
- ☐ vysokoškolské vzdelanie
- ☐ základné vzdelanie
- ☐ úplné stredoškolské vzdelanie

24. Ste:

- ☐ zamestnaný/á
- ☐ SZČO
- ☐ študent/študentka
- ☐ nezamestnaný/á
- ☐ dôchodca/dôchodkyňa
- ☐ na otcovskej/materej/rodičovskej dovolenke

Ak ste SZČO, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
- ☐ poľnohospodárstvo
- ☐ lesné hospodárstvo
- ☐ stavebníctvo
- ☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
- ☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

25. Bývate a pracujete v biosférickej rezervácii? Prosím, označte vhodnú odpoveď a doplňte relevantné údaje

V Biosférickej rezervácii:

- ☐ nepracujem a bývam v (doplňte obec/mesto):
.....
- ☐ pracujem a nebývam, dochádzam sem za prácou (uved'te kilometroch):
.....
- ☐ pracujem a bývam

Ak bývate a pracujete na území biosférickej rezervácie Východné Karpaty doplňte nasledovné údaje:

- ☐ Bývam v:
.....
- ☐ Pracujem v:
.....

DOTAZNÍK obyvateľa

Biosférická rezervácia Východné Karpaty

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie kvality života obyvateľov na území Biosférickej rezervácie Východné Karpaty, ktorá je súčasťou UNESCO Programu Človek a biosféra. Biosférickú rezerváciu Východné Karpaty tvorí územie Národného parku Poloniny a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

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1. Viete o tom, že žijete v Biosférickej rezervácii Východné Karpaty?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Východné Karpaty?

3. Skutočnosť, že žijete v biosférickej rezervácii Východné Karpaty, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Východné Karpaty?

5. Čo vnímate ako najväčšiu výhodu života v Biosférickej rezervácii Východné Karpaty?

6. Viete o tom, že Biosférická rezervácia Poľana patrí medzi lokality Východné Karpaty?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Bývate:

☐ vo vlastnej nehnuteľnosti

☐ v prenájme

☐ v tzv. viacgeneračnej nehnuteľnosti (napr. s rodičmi)

Ide o:

☐ byt v bytovom dome

☐ rodinný dom v obci/meste

☐ usadlosť na lazoch

☐ farma

☐

iné:.....

**9. Ako hodnotíte jednotlivé oblasti života v území Biosférickej rezervácie
Východné Karpaty?**

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	neviem sa vyjadriť, nevyužívam	Ak ste uviedli, že ste nespokojný, napíšte prečo?
Pracovné príležitosti							
Možnosti podnikania							
Nákupné možnosti							
Zachovávanie tradícií, remesiel, folklóru							
Krajinný ráz územia							
Kultúrne vyžitie							
Verejné stravovanie							
Športové možnosti							
Sociálne služby							
Zdravotnícke služby							
Možnosti vzdelávania							
Aktivity v oblasti ochrany životného prostredia a prírody							
Súčasný manažment starostlivosti o národný park							
Lekáreň							
Bankomat							
Verejné priestranstvá a zeleň							
Medziľudské vzťahy							
Separáciu odpadu							
Vzťahy starousadlíkov s novousadlíkmi							
Angažovanosť obyvateľov vo verejnom živote							

Možnosti pre bývanie, výstavbu domov, bytov							
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)							
Možnosti agroturistiky							
Využívanie obnoviteľných zdrojov energie							
Starostlivosť o kultúrno-historické pamiatky							
Práca volených predstaviteľov miest a obcí							
Informácie o dianí v území							
Spolupráca aktérov v území							
Možnosti parkovania							
Bezpečnosť územia							
Kvalita ciest a chodníkov							
Kvalita internetového pokrytia							
Frekvencia spojov medzi obcami a do miest							
Dostupnosť územia autobusom							
Dostupnosť územia vlakom							
Kvalita životného prostredia							
Opatrenia zamerané na ochranu životného prostredia a prírody							
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)							
Organizácia komerčných podujatí							
Propagácia regiónu							
Informácie o prírodných a kultúrno-historických hodnotách územia							

9a. Ak ste v predchádzajúcej otázke uviedli, že ste nespokojní s niektorou oblasťou, prosím, uveďte dôvod.

10. Čo vnímate ako priority rozvoja v území Biosférickej rezervácie Východné Karpaty? (označte 3 najdôležitejšie)

- ☐ rekonštrukcia ciest a chodníkov
- ☐ rekonštrukcia vodovodných a kanalizačných systémov
- ☐ ďalšia bytová výstavba s ohľadom na únosnosť územia
- ☐ rozvoj zdravotných služieb
- ☐ rozvoj kúpeľných služieb
- ☐ rozvoj služieb v oblasti vzdelávania a výchovy
- ☐ rozvoj sociálnych služieb
- ☐ spoločenský a kultúrny život

- ☐ budovanie športovísk
- ☐ ochrana životného prostredia
- ☐ podpora zamestnanosti v poľnohospodárstve
- ☐ podpora zamestnanosti v tradičných remeslách charakteristických pre toto územie
- ☐ rozvoj cestovného ruchu
- ☐ budovanie cyklotrás
- ☐ iné:

11. Ako vnímate rozvoj cestovného ruchu?

- ☐ turisti/návštevníci sú pre nás prínosom
- ☐ turisti spôsobujú problémy
- ☐ je tu málo turistov/návštevníkov
- ☐ je tu veľa turistov/návštevníkov
- ☐ nesledujem to, je mi to jedno

12. Odkiaľ čerpáte informácie o biosférickej rezervácii Východné Karpaty (označte aj viac odpovedí):

- ☐ webové stránky miest, obcí
- ☐ webová stránka národného parku
- ☐ osobné stretnutia so zamestnancami biosférickej rezervácie/ národného parku
- ☐ z miestnych médií (noviny, rozhlas, televízia)
- ☐ z celoštátnych médií (noviny, rozhlas, televízia)
- ☐ z organizovaných akcií biosférickej rezervácie/ národného parku
- ☐ sociálne siete miest, obcí
- ☐ sociálna sieť národného parku
- ☐ úradné tabule v obciach/mestách
- ☐ od známych a rodiny
- ☐ od starostu a poslancov
- ☐ iné:

13. Aký je Váš najvyužívanejší spôsob mobility v území?

- ☐ autom
- ☐ autobusová doprava
- ☐ pešo
- ☐ železničná doprava
- ☐ bicyklom
- ☐ iné:

14. Aký zdroj vody využívate vo Vašej domácnosti?

- ☐ verejný/obecný vodovod
- ☐ vlastná studňa
- ☐ iné:

15. Aký spôsob vykurovania využívate vo Vašej domácnosti?

- ☐ plynové kúrenie
- ☐ elektrické
- ☐ iné:
- ☐ tuhé palivá (drevo, drevné peletky, uhlie ...)

Aké alternatívne zdroje energie využívate vo Vašej domácnosti?

- ☐ fotovoltaičné panely
- ☐ solárne kolektory
- ☐ geotermálna energia
- ☐ tepelné čerpadlo
- ☐ iné:

16. Aké riešenie odpadových vôd využívate vo Vašej domácnosti?

- ☐ verejná kanalizácia
- ☐ malá domová čistiareň
- ☐ vodotesná žumpa

☐ koreňová čistiareň ☐ iné:

17. Máte bazén? ☐ áno ☐ nie

18. Existenciu Biosférickej rezervácie Východné Karpaty/Národného parku Poloniny

vnímate ako:

- ☐ bariéru rozvoja územia
☐ príležitosť pre rozvoj územia
☐ neviem sa vyjadriť

Prosím, odôvodnite Vašu odpoveď:

19. Pohlavie: ☐ Žena ☐ Muž ☐ nechcem uviesť

20. Vek:

- | | |
|--|--|
| ☐ < 18 rokov | ☐ 41 – 50 rokov |
| ☐ 19 – 30 rokov | ☐ 51 – 60 rokov |
| ☐ 31 – 40 rokov | ☐ 61 a viac rokov |

21. Koľko osôb žije vo Vašej domácnosti ?

22. Dosiahnuté vzdelanie:

- | | |
|---|--|
| ☐ bez základného vzdelania | ☐ základné |
| ☐ stredoškolské vzdelanie | ☐ úplné stredoškolské vzdelanie |
| ☐ vysokoškolské | |

23. Ste:

- ☐ zamestnaný/á
☐ SZČO
☐ študent/študentka
☐ nezamestnaný/á
☐ dôchodca/dôchodkyňa
☐ na otcovskej/materej/rodičovskej dovolenke

Ak ste SZČO, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
☐ poľnohospodárstvo
☐ lesné hospodárstvo
☐ stavebníctvo
☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

24. Bývate a pracujete v biosférickej rezervácii? Prosím, označte vhodnú odpoveď a doplňte relevantné údaje

V Biosférickej rezervácii:

- ☐ nepracujem a bývam v (doplňte obec/mesto):
.....
- ☐ pracujem a nebývam, dochádzam sem za prácou (uved'te kilometroch):
.....
- ☐ pracujem a bývam

Ak bývate a pracujete na území biosférickej rezervácie Východné Karpaty doplňte nasledovné údaje:

- ☐ Bývam v:
.....
- ☐ Pracujem v:
.....

DOTAZNÍK obyvateľa Biosférická rezervácia Tatry

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie kvality života obyvateľov na území biosférickej rezervácie Tatry, ktorá je súčasťou UNESCO programu Človek a biosféra. Biosférickú rezerváciu Tatry tvorí územie Tatranského národného parku a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia.

Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu APVV,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že žijete v Biosférickej rezervácii Tatry?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Tatry?

3. Skutočnosť, že žijete v biosférickej rezervácii Tatry, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Tatry?

5. Čo vnímate ako najväčšiu výhodu života v Biosférickej rezervácii Tatry?

6. Viete o tom, že Biosférická rezervácia Tatry patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Bývate:

- ☐ vo vlastnej nehnuteľnosti
☐ v prenájme
☐ v tzv. viacgeneračnej nehnuteľnosti (napr. s rodičmi)

Ide o:

- ☐ byt v bytovom dome ☐ rodinný dom v obci/meste
☐ byt v apartmánovom dome ☐ iné:.....

9. Ako hodnotíte jednotlivé oblasti života v území Biosférickej rezervácie Poľana?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	neviem sa vyjadriť, nevyužívam	Ak ste uviedli, že ste nespokojný, napíšte prečo?
Pracovné príležitosti							
Možnosti podnikania							
Nákupné možnosti							
Zachovávanie tradícií, remesiel, folklóru							
Krajinný ráz územia							
Kultúrne vyžitie							
Verejné stravovanie							
Športové možnosti							
Sociálne služby							
Zdravotnícke služby							
Možnosti vzdelávania							
Programy v oblasti ochrany životného prostredia a prírody							
Súčasný manažment starostlivosti o národný park							
Lekáreň							
Bankomat							
Verejné priestranstvá a zeleň							
Separáciu odpadu							
Medziľudské vzťahy							
Vzťahy starousadlíkov s novousadlíkmi							
Angažovanosť obyvateľov vo verejnom živote							
Možnosti pre bývanie, výstavbu domov, bytov							
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)							

Možnosti agroturistiky							
Využívanie obnoviteľných zdrojov energie							
Starostlivosť o kultúrno-historické pamiatky							
Práca volených predstaviteľov miest a obcí							
Informácie o dianí v území							
Spolupráca aktérov v území							
Možnosti parkovania							
Bezpečnosť územia							
Kvalita ciest a chodníkov							
Kvalita internetového pokrytia							
Frekvencia spojov medzi obcami a do miest							
Dostupnosť územia autobusom							
Dostupnosť územia vlakom							
Kvalita životného prostredia							
Opatrenia zamerané na ochranu životného prostredia a prírody							
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)							
Organizácia komerčných podujatí							
Propagácia regiónu							
Informácie o prírodných a kultúrno-historických hodnotách územia							

Ak ste v predchádzajúcej otázke uviedli, že ste nespokojný s niektorou oblasťou, prosím, uveďte dôvod.

10. Čo vnímate ako priority rozvoja v území Biosférickej rezervácie Tatry? (označte 3 najdôležitejšie)

- ☐ rekonštrukcia ciest a chodníkov
- ☐ rekonštrukcia vodovodných a kanalizačných systémov
- ☐ bytová výstavba s ohľadom na únosnosť územia
- ☐ prísnejšia regulácia výstavby v území
- ☐ rozvoj zdravotných služieb
- ☐ rozvoj kúpeľných služieb
- ☐ rozvoj služieb v oblasti vzdelávania a výchovy
- ☐ rozvoj sociálnych služieb
- ☐ spoločenský a kultúrny život
- ☐ budovanie športovísk
- ☐ ochrana životného prostredia
- ☐ podpora zamestnanosti v poľnohospodárstve
- ☐ podpora zamestnanosti v tradičných remeslách charakteristických pre toto územie

- ☐ rozvoj cestovného ruchu
- ☐ budovanie cyklotrás
- ☐ iné:

11. Ako vnímate rozvoj cestovného ruchu?

- ☐ turisti/návštevníci sú pre nás prínosom pre všestranný rozvoj územia
- ☐ turisti spôsobujú problémy
- ☐ je tu málo turistov/návštevníkov
- ☐ je tu veľa turistov/návštevníkov
- ☐ nesledujem to, je mi to jedno

12. Odkiaľ čerpáte informácie o biosférickej rezervácii Tatry ?(označte aj viac odpovedí):

- ☐ webové stránky miest, obcí
- ☐ webová stránka národného parku
- ☐ osobné stretnutia so zamestnancami biosférickej rezervácie/národného parku
- ☐ z miestnych médií (noviny, rozhlas, televízia)
- ☐ z celoštátnych médií (noviny, rozhlas, televízia)
- ☐ z organizovaných akcií biosférickej rezervácie/národného parku
- ☐ sociálne siete miest, obcí
- ☐ sociálna sieť národného parku
- ☐ úradné tabule v obciach/mestách
- ☐ od známych a rodiny
- ☐ od starostu a poslancov
- ☐ iné:.....

13. Aký je Váš najvyužívanejší spôsob mobility v území?

- ☐ autom
- ☐ autobusová doprava
- ☐ pešo
- ☐ železničná doprava
- ☐ bicyklom
- ☐ iné:

14. Aký zdroj vody využívate vo Vašej domácnosti?

- ☐ verejný/obecný vodovod
- ☐ vlastná studňa
- ☐ iné:.....

15. Aký spôsob vykurovania využívate vo Vašej domácnosti?

- ☐ plynové kúrenie
- ☐ elektrické
- ☐ iné:.....
- ☐ tuhé palivá (drevo, drevné peletky, uhlie ...)

Aké alternatívne zdroje energie využívate vo Vašej domácnosti?

- ☐ fotovoltaičné panely
- ☐ solárne kolektory
- ☐ geotermálna energia
- ☐ tepelné čerpadlo
- ☐ iné:

16. Aké riešenie odpadových vôd využívate vo Vašej domácnosti?

- ☐ verejná kanalizácia ☐ malá domová čistiareň ☐ vodotesná žumpa
☐ koreňová čistiareň ☐ iné:

17. Máte bazén? ☐ áno ☐ nie

18. Vnímate existenciu Tatranského národného parku ako:

- ☐ bariéru rozvoja územia
☐ príležitosť pre rozvoj územia
☐ neviem sa vyjadriť

Prosím, odôvodnite Vašu odpoveď:

19. Pohlavie: ☐ Žena ☐ Muž ☐ nechcem uviesť

20. Vek:

- ☐ < 18 rokov ☐ 41 – 50 rokov
☐ 19 – 30 rokov ☐ 51 – 60 rokov
☐ 31 – 40 rokov ☐ 61 rokov a viac

21. Koľko osôb žije vo Vašej domácnosti ?

22. Dosiahnuté vzdelanie:

- ☐ bez základného vzdelania ☐ základné vzdelanie
☐ stredoškolské vzdelanie ☐ úplné stredoškolské vzdelanie
☐ vysokoškolské vzdelanie

23. Ste:

- ☐ zamestnaný/á
☐ SZČO
☐ študent/študentka
☐ nezamestnaný/á
☐ dôchodca/dôchodkyňa
☐ na otcovskej/materej/rodičovskej dovolenke

Ak ste SZČO, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
☐ poľnohospodárstvo
☐ lesné hospodárstvo
☐ stavebníctvo
☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

24. Bývate a pracujete v biosférickej rezervácii Tatry? Prosím, označte vhodnú odpoveď a doplňte relevantné údaje

V Biosférickej rezervácii:

- ☐ nepracujem a bývam v (doplňte obec/mesto):
.....
- ☐ pracujem a nebývam, dochádzam sem za prácou (uved'te kilometroch):
.....
- ☐ pracujem a bývam

Ak bývate a pracujete na území biosférickej rezervácie Tatry doplňte nasledovné údaje:

- ☐ Bývam v:
.....
- ☐ Pracujem v:
.....

Zdroj: vlastné spracovanie

Príloha 5 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa Biosférická rezervácia Poľana na základe pohlavia

Reprezentatívnosť podľa pohlavia obyvateľa Biosférická rezervácia Poľana			
	Observed	Expected	Residual
Žena	58	57,6	0,4
Muž	55	55,4	-0,4
Total	113		

Test Statistics	
	pohlavie
Chi-Square	,005a
df	1
Asymp. Sig.	0,944
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 55,4.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 6 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa Biosférická rezervácia Slovenský kras na základe pohlavia

Reprezentatívnosť podľa pohlavia obyvateľa Biosférická rezervácia Slovenský kras			
	Observed	Expected	Residual
Žena	59	52,5	6,5

Muž	44	50,5	-6,5
Total	103		

Test Statistics	
pohlavie	
Chi-Square	1,626a
df	1
Asymp. Sig.	0,202
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 50,5.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 7 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa Biosférická rezervácia Východné Karpaty na základe pohlavia

Reprezentatívnosť podľa pohlavia obyvateľa Biosférická rezervácia Východné Karpaty			
	Observed	Expected	Residual
Žena	59	49,5	9,5
Muž	40	49,5	-9,5
Total	99		

Test Statistics	
pohlavie	
Chi-Square	3,646a
df	1
Asymp. Sig.	0,056
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 49,5.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 8 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa Biosférická rezervácia Tatry na základe pohlavia

Reprezentatívnosť podľa pohlavia obyvateľa Biosférická rezervácia Tatry			
	Observed	Expected	Residual
Žena	37	36,7	0,3
Muž	35	35,3	-0,3
Total	72		

Test Statistics			
pohlavie			

Chi-Square	,004a
df	1
Asymp. Sig.	0,947
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 35,3.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 9 Chi-Square test reprezentatívnosti výskumnej vzorky obyvatelia Biosférická rezervácia Poľana na základe vekových skupín

Reprezentatívnosť podľa vekových skupín obyvatelia Biosférická rezervácia Poľana			
	Observed	Expected	Residual
< 18 - 30	34	36,2	-2,2
31 - 50	45	33,9	11,1
> 51	34	42,9	-8,9
Total	113		

Test Statistics	
vekové skupiny	
Chi-Square	5,625a
df	2
Asymp. Sig.	0,060
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 33,9.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 10 Chi-Square test reprezentatívnosti výskumnej vzorky obyvatelia Biosférická rezervácia Slovenský kras na základe vekových skupín

Reprezentatívnosť podľa vekových skupín obyvatelia Biosférická rezervácia Slovenský kras			
	Observed	Expected	Residual
< 18 - 30	36	40,2	-4,2
31 - 50	34	29,9	4,1
> 51	33	33,0	0,0
Total	103		

Test Statistics	
vekové skupiny	
Chi-Square	1,004a
df	2
Asymp. Sig.	0,605
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 29,9.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 11 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa
Biosférická rezervácia Východné Karpaty na základe vekových skupín

Reprezentatívnosť podľa vekových skupín obyvateľa Biosférická rezervácia Východné Karpaty			
	Observed	Expected	Residual
< 18 - 30	30	30,7	-0,7
31 - 50	29	28,7	0,3
> 51	40	39,6	0,4
Total	99		

Test Statistics	
vekové skupiny	
Chi-Square	,022a
df	2
Asymp. Sig.	0,989
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 28,7.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 12 Chi-Square test reprezentatívnosti výskumnej vzorky obyvateľa
Biosférická rezervácia Tatry na základe vekových skupín

Reprezentatívnosť podľa vekových skupín obyvateľa Biosférická rezervácia Tatry			
	Observed	Expected	Residual
< 18 - 30	16	25,9	-9,9
31 - 50	26	21,6	4,4
> 51	30	24,5	5,5
Total	72		

Test Statistics	
vekové skupiny	
Chi-Square	5,938a
df	2
Asymp. Sig.	0,051
a. 0 cells (0,0%) have expected frequencies less than 5. The minimum expected cell frequency is 21,6.	

Zdroj: Vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

***DOTAZNÍK starostovia a starostky
Biosférická rezervácia Pol'ana***

*Za výskumný tím,
Mária Vavrušová (maria.vavrusova@student.umb.sk),
Katedra verejnej ekonomiky a regionálneho rozvoja,
Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici*

- 1. Považujete skutočnosť, že Vaša obec spadá pod územie Biosférickej rezervácie Pol'ana za:**

☐ prínos a pozitívnu vec ☐ negatívnu skutočnosť ☐ neviem

Prosím, odôvodnite Vašu odpoveď:

- 2. Spolupracujete na projektoch zameraných na rozvoj územia s Biosférickou rezerváciou Poľana?**

☐ **Áno** ☐ **Nie**

Ak ste odpovedali áno, prosím, uveďte príklady oblastí alebo projekty zamerané na rozvoj územia, v rámci ktorých spolupracujete s Biosférickou rezerváciou Poľana:

Ak ste odpovedali nie, pokračujte otázkou č. 7.

- ### 3. Vnímate túto spoluprácu ako fungujúcu a prospešnú?

☐ **Áno** ☐ **Nie**

Odôvodnite Vašu odpoveď:

4. Vnímate nejaké konkrétne problémy, ktoré narúšajú túto spoluprácu?

4a Ako by ste tieto problémy riešili?

5. Vnímate nejaké konkrétne problémy, ktoré bránia v rozvoji územia biosférickej rezervácie?

5a Ako by ste tieto problémy riešili?

6. Máte vo svojich strategických dokumentoch alebo projektoch zahrnuté oblasti týkajúce sa spolupráce s Biosférickou rezerváciou Poľana?

☐ Áno

☐ Nie

Ak áno, o aké konkrétne dokumenty ide?

7. Máte záujem spolupracovať v budúcnosti na projektoch zameraných na rozvoj biosférickej rezervácie Poľana?

☐ Áno

☐ Nie

Ak áno, v akej oblasti?

8. S akými subjektmi najviac spolupracujete, ktoré sú súčasťou Biosférickej rezervácie Poľana (rôzni podnikatelia a neziskové organizácie v území, iní starostovia a starostky obcí spadajúcich do tohto územia a pod.) ?

9. Vnímate túto spoluprácu ako fungujúcu a prospešnú?

☐ Áno

☐ Nie

Ak nie, odôvodnite Vašu odpoveď:

10. Vnímate záujem o participáciu miestnych občanov za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

Prosím, odôvodnite Vašu odpoveď:

11. Aké formy participácie miestnych občanov pri rozvoji územia ste dosiaľ využívali?

	Nevyužili sme	1 x za rok	2-3x za rok	Viac ako 3x za rok	Označte ich účinnosť na stupnici od 1 po 5 (5 – najúčinnnejšie)
Dotazník					
Anketa					
Verejné stretnutia a diskusie					
Individuálne rozhovory s občanmi					
Elektronické hlasovanie					
Iné:.....					

12. Ako vidíte fungovanie Biosférickej rezervácie Poľana v budúcnosti?

13. Čo by sa dalo z Vášho pohľadu zlepšiť v rámci fungovania Biosférickej rezervácie Poľana?

14. Je obec, ktorú zastupujete členom Koordinačnej rady BR Poľana?

☐ Áno

☐ Nie

15. Poznáte stanovky Koordinačnej rady BR Poľana?

☐ Áno

☐ Nie

16. Pomohlo Vám v obci, že ste členom Koordinačnej rady BR Poľana?

☐ Áno

☐ Nie

Odôvodnite Vašu odpoveď:

17. Pôsobím v obci : _____

DOTAZNÍK stakeholderi

Biosférická rezervácia Slovenský kras

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na vnímania existencie biosférickej rezervácie Slovenský kras a miery spolupráce na území tejto rezervácie v rámci realizovaných aktivít jej predstaviteľov s rôznymi zainteresovanými subjektmi. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že pôsobíte v Biosférickej rezervácii Slovenský kras?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Slovenský kras?

3. Skutočnosť, že pôsobíte v biosférickej rezervácii, považujete za (Vašu odpoveď zároveň, prosím, odôvodnite v riadku pod označenou odpoveďou):

☐ prínos a pozitívnu vec

.....

☐ negatívnu skutočnosť

.....

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Slovenský kras?

5. Čo vnímate ako najväčšiu výhodu pôsobenia v Biosférickej rezervácii Slovenský kras?

6. Viete o tom, že Biosférická rezervácia Slovenský kras patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Spolupracujete na projektoch zameraných na rozvoj územia s biosférickou rezerváciou Slovenský kras (v súčasnosti zastúpenou Správou NP Slovenský kras)?

☐ Áno

☐ Nie

Ak ste v otázke č. 8 odpovedali „Áno“, prosím, uveďte príklady oblastí alebo projekty zamerané na rozvoj územia, v rámci ktorých spolupracujete s Biosférickou rezerváciou Slovenský kras:

9. Vnímate túto spoluprácu ako fungujúcu a prospešnú? Vašu odpoveď prosím odôvodnite.

☐ Áno

.....

☐ Nie

.....

10. Vnímate nejaké konkrétne problémy, ktoré narúšajú túto spoluprácu, V prípade kladnej odpovede, uveďte, prosím, problém a ako by ste ho riešili.

- ☐ Žiadne problémy nevnímam
☐ Áno, vnímam nasledovné problémy:

.....

11. Vnímate nejaké konkrétne problémy, ktoré bránia v rozvoji územia biosférickej rezervácie udržateľným spôsobom Slovenský kras ? Označte ľubovoľný počet odpovedí. Pri každom probléme, ktorý označíte, zároveň uveďte, ako by sa to dalo podľa Vás riešiť:

- ☐ Ťažba nerastných surovín na území národného parku
.....
☐ Náročná starostlivosť o chránené územie
.....
☐ Nedostatočné kompenzácie súkromným vlastníkom pôdy
.....
☐ Odliv mladej generácie z regiónu
.....
☐ Sezónnosť v cestovnom ruchu (silné leto, slabá zima)
.....
☐ Zlá dopravná dostupnosť územia
.....
☐ Nedostatočné možnosti parkovania
.....
☐ Nedostatočne využitý potenciál cezhraničnej spolupráce
.....
☐ Nekoordinované aktivity jednotlivých subjektov v území
.....
☐ Nedostatočná komunikácia medzi zainteresovanými subjektmi v území
.....
☐ Iné:
.....

12. Máte vo svojich strategických dokumentoch alebo projektoch zahrnuté oblasti týkajúce sa spolupráce s Biosférickou rezerváciou Slovenský kras ?

- ☐ Áno ☐ Nie

Uveďte, prosím, o aké konkrétne dokumenty alebo projekty ide?

13. Máte v budúcnosti záujem spolupracovať na projektoch zameraných na zachovanie a rozvoj biosférickej rezervácie Slovenský kras (napr. zachovaním tradícií, tradičných priemyselných odvetví, spôsoby obhospodarovania územia, kultúry a pod.) ?

- ☐ Áno ☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno", uveďte, prosím, akým spôsobom viete prispieť k jej rozvoju.

14. Boli by ste ochotní podporiť fungovanie biosférickej rezervácie Slovenský kras:

☐ Finančne v sume:

.....

☐ Nefinančne, ako?

.....

☐ Nie som ochotný podporiť fungovanie biosférickej rezervácie

15. S akými subjektmi, ktoré pôsobia na území biosférickej rezervácie Slovenský kras, spolupracujete a prečo?

16. Vnímate túto spoluprácu ako fungujúcu a prospešnú?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", Vašu odpoveď, prosím, odôvodnite

17. Vnímate záujem o participáciu miestnych občanov o dianie v území biosférickej rezervácie Slovenský kras /Národného parku Slovenský kras(označte jednu možnosť a zdôvodnite ju, prosím):

☐ prínos a pozitívnu vec

.....
☐ negatívnu skutočnosť

.....
☐ neviem

**18. Aké formy participácie miestnych občanov pri rozvoji územia ste dosiaľ využívali?
V každom riadku, prosím, označte ako často tieto formy participácie využívate.**

	Nevyužili sme	1 x za rok	2-3x za rok	Viac ako 3x za rok
Dotazník				
Anketa				
Verejné stretnutia a diskusie				
Individuálne rozhovory s občanmi				
Elektronické hlasovanie				

Iné uved'te, čo konkrétne:.....				
---------------------------------	--	--	--	--

19. Označte účinnosť vybraných foriem participácie miestnych občanov pri rozvoji územia, ktoré využívate. V každom riadku označte, prosím, jednu odpoveď.

	najúčinnejšie	skôr účinné	neviem sa skôr vyjadriť	skôr vyjadriť neúčinné	najmenej účinné
Dotazník					
Anketa					
Verejné stretnutia a diskusie					
Individuálne rozhovory s občanmi					
Elektronické hlasovanie					
Iné uved'te, čo konkrétne:.....					

20. Ako vidíte fungovanie Biosférickej rezervácie Slovenský kras v budúcnosti(napr. čo je potrebné zlepšiť, v čom pokračovať a pod.)?

21. Ste členmi Rady Národného parku Slovenský kras?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", mali by ste záujem sa stať členom Rady Národného parku Slovenský kras?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno" uved'te, prosím, Váš e- mailový kontakt

Zastupujem inštitúciu

Pôsobím v obci/meste

DOTAZNÍK stakeholderi

Biosférická rezervácia Východné Karpaty

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na vnímania existencie biosférickej rezervácie Východné Karpaty a miery spolupráce na území tejto rezervácie v rámci realizovaných aktivít jej predstaviteľov s rôznymi zainteresovanými subjektmi. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme
Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že žijete v Biosférickej rezervácii Východné Karpaty?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Východné Karpaty?

3. Skutočnosť, že pôsobíte v biosférickej rezervácii, považujete za (Vašu odpoveď zároveň, prosím, odôvodnite v riadku pod označenou odpoveďou):

☐ prínos a pozitívnu vec

.....

☐ negatívnu skutočnosť

.....

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Východné Karpaty?

5. Čo vnímate ako najväčšiu výhodu pôsobenia v Biosférickej rezervácii Východné Karpaty?

6. Viete o tom, že Biosférická rezervácia Východné Karpaty patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Spolupracujete na projektoch zameraných na rozvoj územia s biosférickou rezerváciou Východné Karpaty (v súčasnosti zastúpenou Správou NP Poloniny)

☐ Áno

☐ Nie

Ak ste v otázke č. 8 odpovedali „Áno“, prosím, uveďte príklady oblastí alebo projekty zamerané na rozvoj územia, v rámci ktorých spolupracujete s Biosférickou rezerváciou Východné Karpaty:

9. Vnímate túto spoluprácu ako fungujúcu a prospešnú? Vašu odpoveď prosím odôvodnite.

☐ Áno

.....

☐ Nie

.....

10. Vnímate nejaké konkrétne problémy, ktoré narúšajú túto spoluprácu, V prípade kladnej odpovede, uveďte, prosím, problém a ako by ste ho riešili.

- ☐ Žiadne problémy nevnímam
☐ Áno, vnímam nasledovné problémy:

.....

11. Vnímate nejaké konkrétne problémy, ktoré bránia v rozvoji územia biosférickej rezervácie udržateľným spôsobom Východné Karpaty ? Označte ľubovoľný počet odpovedí. Pri každom probléme, ktorý označíte, zároveň uveďte, ako by sa to dalo podľa Vás riešiť:

- ☐ Ťažba nerastných surovín na území národného parku
.....
- ☐ Náročná starostlivosť o chránené územie
.....
- ☐ Nedostatočné kompenzácie súkromným vlastníkom pôdy
.....
- ☐ Odliv mladej generácie z regiónu
.....
- ☐ Sezónnosť v cestovnom ruchu (silné leto, slabá zima)
.....
- ☐ Zlá dopravná dostupnosť územia
.....
- ☐ Nedostatočné možnosti parkovania
.....
- ☐ Nedostatočne využitý potenciál cezhraničnej spolupráce
.....
- ☐ Nekoordinované aktivity jednotlivých subjektov v území
.....
- ☐ Nedostatočná komunikácia medzi zainteresovanými subjektmi v území
.....
- ☐ Iné:
.....

12. Máte vo svojich strategických dokumentoch alebo projektoch zahrnuté oblasti týkajúce sa spolupráce s Biosférickou rezerváciou Východné Karpaty ?

- ☐ Áno ☐ Nie

Uveďte, prosím, o aké konkrétne dokumenty alebo projekty ide?

13. Máte v budúcnosti záujem spolupracovať na projektoch zameraných na zachovanie a rozvoj biosférickej rezervácie Východné Karpaty (napr. zachovaním tradícií, tradičných priemyselných odvetví, spôsoby obhospodarovania územia, kultúry a pod.) ?

- ☐ Áno ☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno", uveďte, prosím, akým spôsobom viete prispieť k jej rozvoju.

14. Boli by ste ochotní podporiť fungovanie biosférickej rezervácie Východné Karpaty:

☐ Finančne v sume:

.....

☐ Nefinančne, ako?

.....

☐ Nie som ochotný podporiť fungovanie biosférickej rezervácie

15. S akými subjektmi, ktoré pôsobia na území biosférickej rezervácie Východné Karpaty, spolupracujete a prečo?

16. Vnímate túto spoluprácu ako fungujúcu a prospešnú?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", Vašu odpoveď, prosím, odôvodnite

17. Vnímate záujem o participáciu miestnych občanov o dianie v území biosférickej rezervácie Východné Karpaty/Národného parku Poloniny (označte jednu možnosť a zdôvodnite ju, prosím):

☐ prínos a pozitívnu vec

.....

☐ negatívnu skutočnosť

.....

☐ neviem

18. Aké formy participácie miestnych občanov pri rozvoji územia ste dosiaľ využívali? V každom riadku, prosím, označte ako často tieto formy participácie využívate.

	Nevyužili sme	1 x za rok	2-3x za rok	Viac ako 3x za rok
Dotazník				
Anketa				
Verejné stretnutia a diskusie				

Individuálne rozhovory s občanmi				
Elektronické hlasovanie				
Iné uveďte, čo konkrétne:.....				

19. Označte účinnosť vybraných foriem participácie miestnych občanov pri rozvoji územia, ktoré využívate. V každom riadku označte, prosím, jednu odpoveď.

	najúčinnejšie	skôr účinné	neviem sa skôr vyjadriť	skôr vyjadriť neúčinné	najmenej účinné
Dotazník					
Anketa					
Verejné stretnutia a diskusie					
Individuálne rozhovory s občanmi					
Elektronické hlasovanie					
Iné uveďte, čo konkrétne:.....					

20. Ako vidíte fungovanie Biosférickej rezervácie Východné Karpaty v budúcnosti(napr. čo je potrebné zlepšiť, v čom pokračovať a pod.)?

21. Ste členmi Rady Národného parku Poloniny?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", mali by ste záujem sa stať členom Rady Národného parku Poloniny?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno" uveďte, prosím, Váš e- mailový kontakt

Zastupujem inštitúciu

Pôsobím v obci/meste

DOTAZNÍK stakeholderi

Biosférická rezervácia Tatry

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na vnímania existencie biosférickej rezervácie Tatry a miery spolupráce na území tejto rezervácie v rámci realizovaných aktivít jej predstaviteľov s rôznymi zainteresovanými subjektmi. Biosférickú rezerváciu Tatry tvorí územie Tatranského národného parku a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, Vám vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že pôsobíte v Biosférickej rezervácii Tatry?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Tatry?

3. Skutočnosť, že pôsobíte v biosférickej rezervácii, považujete za (Vašu odpoveď zároveň, prosím, odôvodnite v riadku pod označenou odpoveďou):

☐ prínos a pozitívnu vec

.....

☐ negatívnu skutočnosť

.....

☐ neviem

4. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Tatry?

5. Čo vnímate ako najväčšiu výhodu pôsobenia v Biosférickej rezervácii Tatry?

6. Viete o tom, že Biosférická rezervácia Tatry patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

7. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

8. Spolupracujete na projektoch zameraných na rozvoj územia s biosférickou rezerváciou Tatry(v súčasnosti zastúpenou Správou TANAPu)?

☐ Áno

☐ Nie

Ak ste v otázke č. 8 odpovedali „Áno“, prosím, uveďte príklady alebo projekty zamerané na rozvoj územia, v rámci ktorých spolupracujete s Biosférickou rezerváciou Tatry:

9. Vnímate túto spoluprácu ako fungujúcu a prospešnú? Vašu odpoveď prosím odôvodnite.

☐ Áno

.....

☐ Nie

.....

10. Vnímate nejaké konkrétne problémy, ktoré narúšajú túto spoluprácu? V prípade kladnej odpovede, uveďte, prosím, problém a ako by ste ho riešili.

- ☐ Žiadne problémy nevnímam
☐ Áno, vnímam nasledovné problémy:

.....

11. Považujete niektorú z nižšie uvedených oblastí za problém, ktorý bráni rozvoju územia Biosférickej rezervácie Tatry udržateľným spôsobom (označte ľubovoľný počet odpovedí)? Pri každom probléme, ktorý označíte, zároveň uveďte, ako by sa to dalo podľa Vás riešiť:

- ☐ Ťažba nerastných surovín na území národného parku
.....
- ☐ Náročná starostlivosť o chránené územie
.....
- ☐ Nedostatočné kompenzácie súkromným vlastníkom pôdy
.....
- ☐ Odliv mladej generácie z regiónu
.....
- ☐ Sezónnosť v cestovnom ruchu (silné leto, slabá zima)
.....
- ☐ Zlá dopravná dostupnosť územia
.....
- ☐ Nedostatočné možnosti parkovania
.....
- ☐ Nedostatočne využitý potenciál cezhraničnej spolupráce
.....
- ☐ Nekoordinované aktivity jednotlivých subjektov v území
.....
- ☐ Nedostatočná komunikácia medzi zainteresovanými subjektmi v území
.....
- ☐ Iné:
.....

12. Máte vo svojich strategických dokumentoch alebo projektoch zahrnuté oblasti týkajúce sa spolupráce s Biosférickou rezerváciou Tatry ?

- ☐ Áno ☐ Nie

Uveďte, prosím, o aké konkrétne dokumenty alebo projekty ide?

13. Máte v budúcnosti záujem spolupracovať na projektoch zameraných na zachovanie a rozvoj biosférickej rezervácie Tatry (napr. zachovaním tradícií, tradičných priemyselných odvetví, spôsoby obhospodarovania územia, kultúry a pod.) ?

- ☐ Áno ☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno", uveďte, prosím, akým spôsobom viete prispieť k jej rozvoju.

14. Boli by ste ochotní podporiť fungovanie biosférickej rezervácie Tatry:

☐ Finančne v sume:

.....

☐ Nefinančne, ako?

.....

☐ Nie som ochotný podporiť fungovanie biosférickej rezervácie

15. S akými subjektmi, ktoré pôsobia na území biosférickej rezervácie Tatry, spolupracujete a prečo?

16. Vnímate túto spoluprácu ako fungujúcu a prospešnú?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", Vašu odpoveď, prosím, odôvodnite

17. Vnímate záujem o participáciu miestnych občanov o dianie v území biosférickej rezervácie Tatry / Tatranského národného parku (označte jednu možnosť a zdôvodnite ju, prosím):

☐ prínos a pozitívnu vec

.....
☐ negatívnu skutočnosť

.....
☐ neviem

.....

18. Aké formy participácie miestnych občanov pri rozvoji územia ste dosiaľ využívali? V každom riadku, prosím, označte ako často tieto formy participácie využívate.

	Nevyužili sme	1 x za rok	2-3x za rok	Viac ako 3x za rok
Dotazník				
Anketa				
Verejné stretnutia a diskusie				

Individuálne rozhovory s občanmi				
Elektronické hlasovanie				
Iné uveďte, čo konkrétne:.....				

19. Označte účinnosť vybraných foriem participácie miestnych občanov pri rozvoji územia, ktoré využívate. V každom riadku označte, prosím, jednu odpoveď.

	najúčinnejšie	skôr účinné	neviem sa skôr vyjadriť	skôr vyjadriť neúčinné	najmenej účinné
Dotazník					
Anketa					
Verejné stretnutia a diskusie					
Individuálne rozhovory s občanmi					
Elektronické hlasovanie					
Iné uveďte, čo konkrétne:.....					

20. Ako vidíte fungovanie Biosférickej rezervácie Tatry v budúcnosti(napr. čo je potrebné zlepšiť, v čom pokračovať a pod.)?

21. Ste členmi Rady Tatranského národného parku?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Nie", mali by ste záujem sa stať členom Rady Tatranského národného parku?

☐ Áno

☐ Nie

Ak ste v predchádzajúcej otázke odpovedali "Áno" uveďte, prosím, Váš e- mailový kontakt

Zastupujem inštitúciu

Pôsobím v obci/meste

Zdroj: vlastné spracovanie

**Príloha 14 Dotazníky v analýze ponuky biosférických rezervácií na území
Slovenskej republiky ich turistami**

DOTAZNÍK turisti
Biosférická rezervácia Poľana

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie ponuky Biosférickej rezervácie Poľana, ktorá je súčasťou UNESCO Programu Človek a biosféra. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

- 1. Viete o tom, že sa nachádzate v Biosférickej rezervácii Poľana?**
☐ Áno ☐ Nie
- 2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Poľana?**
-
- 3. Skutočnosť, že sa nachádzate v biosférickej rezervácii, považujete za:**
☐ prínos a pozitívnu vec ☐ negatívnu skutočnosť ☐ neviem
- 4. Viete o tom, že Biosférická rezervácia Poľana patrí medzi lokality UNESCO?**
☐ Áno ☐ Nie
- 5. Počuli ste už o UNESCO Programe Človek a biosféra?**
☐ Áno ☐ Nie
- 6. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Poľana?**
-
- 7. Čo vnímate ako najväčšiu výhodu, že sa nachádzate v Biosférickej rezervácii Poľana?**
-

8. Koľko dní trvá Váš pobyt v Biosférickej rezervácii Poľana?

- ☐ 1 deň
☐ 2 - 3 dni
☐ 4 - 7 dní
☐ 8 - 14 dní
☐ 15 dní a viac

V prípade, že ste označili, že Váš pobyt trvá dlhšie ako 1 deň, uveďte, prosím, akú formu ubytovania využívate:

- ☐ hotel
☐ penzión
☐ na súkromí
☐ v prenajatej chate
☐ vo vlastnom dome/apartmáne
☐ stan
☐ v ubytovaní poskytnutom zamestnávateľom
☐ pri rodine, priateľoch, známym
☐ iná možnosť a to:

.....

9. Čo je hlavným dôvodom návštevy Biosférickej rezervácie Poľana (označte, prosím, max. 3 možnosti)?

- ☐ pešia turistika
☐ cykloturistika
☐ lyžovanie
☐ bežkovanie
☐ horolezectvo
☐ jazdy na koni
☐ oddych a rekreácia
☐ kultúrne pamiatky
☐ industriálne pamiatky a baníctvo

☐ vybrané spoločenské/kultúrne podujatie, ktoré sa tu koná (uveďte, prosím, o aké podujatie ide):

-
☐ Čiernohorská železnica skanzen
☐ Podpolianske múzeum
☐ Horehronské múzeum
☐ pracovné povinnosti
☐ iné :

.....

10. Aký dopravný prostriedok ste využili na docestovanie do Biosférickej rezervácie Poľana?

- ☐ auto
☐ autobus
☐ tourbus
☐ vlak
☐ motorka

☐ bicykel
☐ lietadlo, na ktoré letisko ste pristáli?

.....
☐ pešo
☐ iné možnosti, aké:

.....

11. Aký dopravný prostriedok využívate najviac pri cestovaní v rámci územia Biosférickej rezervácie Poľana?

- ☐ auto
☐ autobus
☐ tourbus
☐ vlak

☐ motorka
☐ bicykel
☐ pešo
☐ iné možnosti, aké:

.....

12. Ako by ste ohodnotili nasledovné aspekty Vášho pobytu v Biosférickej rezervácii Poľana?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	neviem sa vyjadriť, nevyužívam
Starostlivosť o prírodu						
Údržba turistických chodníkov						
Značenie turistických chodníkov						
Sprievodcovské služby						
Krajinný ráz územia Biosférickej rezervácie Poľana						
Dopravná dostupnosť autobusom						
Dopravná dostupnosť vlakom						
Dopravná dostupnosť autom						
Možnosti parkovania						
Ponuka tradičných produktov						
Služby TIC						
Ponuka historických a kultúrnych pamiatok						
Dostupnosť informácií o území						
Kvalita služieb						
Rozmanitosť služieb						
Ponuka sortimentu v obchodoch						
Gastronómia						
Ticho, pokoj						
Možnosti stanovania						
Možnosti kempovania						
Služby pre ľudí s hendikepom						
Ponuka kultúrnych/spoločenských podujatí						
Ponuka cyklotrás						
Možnosti bežkovania						
Možnosti lyžovania						
Možnosti pre horolezectvo						

Ak ste v predchádzajúcej otázke odpovedali, že ste s niečím nespokojní, uveďte, prosím, prečo.

13. Pre ochranu prírody a zachovanie jej jedinečnosti som ochotný (označte pre Vás prijateľné alternatívy):

☐ Platiť poplatok za vstup do biosférickej rezervácie v sume (doplňte sumu):

.....

☐ Dodržiavať obmedzenie zákazu vstupu do neprístupných lokalít

☐ Zapájať sa do dobrovoľníckych aktivít pri údržbe turistických trás a ich značenia

☐ iné (prosím, uveďte, čo konkrétne):

.....

14. Pri návšteve Biosférickej rezervácie Poľana čerpáte informácie(označte aj viac odpovedí):

☐ z internetovej stránky

☐ zo sociálnych sietí (Facebook, Instagram a iné) Biosférickej rezervácie Poľana

☐ zo sociálnych sietí (Facebook, Instagram a iné) miest a obcí na území

☐ z iných internetových stránok, uveďte, prosím, z akých

.....

☐ z informačných centier

☐ z cestovnej kancelárie

☐ z osobného stretnutia so zamestnancami biosférickej rezervácie

☐ z miestnych médií (noviny, rozhlas, televízia)

☐ z celoštátnych médií (noviny, rozhlas, televízia)

☐ z organizovaných akcií biosférickej rezervácie

☐ z hotela, penziónu alebo z iného ubytovacieho zariadenia

☐ od známych a rodiny

☐ iných zdrojov (uveďte prosím, z akých)

.....

☐ nevyhľadávam informácie, čerpám z vlastných skúseností

15. Považujete dostupné informácie za dostatočné?

☐ Áno

☐ Nie, chýbajú mi informácie o (prosím, doplňte nižšie)

.....

16. **Pohlavie:** ☐ Žena

☐ Muž

☐ nechcem uviesť

17. Vek:

☐ < 18 rokov

☐ 19 – 30 rokov

☐ 31 – 40 rokov

☐ 41 – 50 rokov

☐ 51 – 60 rokov

☐ 61 rokov a viac

18. Ekonomická aktivita. Ste:

- ☐ nezamestnaný/á
- ☐ študentka/študent
- ☐ dôchodkyňa/dôchodca
- ☐ zamestnanec/zamestnankyňa
- ☐ na otcovskej/materej/rodičovskej dovolenke
- ☐ samostatne zárobkovo činná osoba

Ak ste samostatne zárobkovo činná osoba, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
- ☐ poľnohospodárstvo
- ☐ lesné hospodárstvo
- ☐ stavebníctvo
- ☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
- ☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

19. Pochádzate z (prosím, uveďte, mesto/obec, kraj, štát):

DOTAZNÍK turisti

Biosférická rezervácia Slovenský kras

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie ponuky Biosférickej rezervácie Slovenský kras, ktorá je súčasťou UNESCO Programu Človek a biosféra. Biosférickú rezerváciu Slovenský kras tvorí územie Národného parku Slovenský kras a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že sa nachádzate v Biosférickej rezervácii Slovenský kras?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Slovenský kras?

3. Skutočnosť, že sa nachádzate v biosférickej rezervácii Slovenský kras, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Viete o tom, že Biosférická rezervácia Slovenský kras patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

5. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

6. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Slovenský kras?

7. Čo vnímate ako najväčšiu výhodu, že sa nachádzate v Biosférickej rezervácii Slovenský kras?

8. Koľko dní trvá Váš pobyt v Biosférickej rezervácii Slovenský kras?

- ☐ 1 deň
☐ 2 - 3 dni
☐ 4 - 7 dní
☐ 8 - 14 dní
☐ 15 dní a viac

V prípade, že ste označili, že Váš pobyt trvá dlhšie ako 1 deň, uveďte, prosím, akú formu ubytovania využívate:

- ☐ hotel
☐ penzión
☐ na súkromí
☐ v prenajatej chate
☐ vo vlastnom dome/apartmáne
☐ stan
☐ v ubytovaní poskytnutom zamestnávateľom
☐ pri rodine, priateľoch, známych
☐ iná možnosť a to:

.....

9. Čo je hlavným dôvodom návštevy Biosférickej rezervácie Slovenský kras (označte, prosím, max. 3 možnosti)?

- | | |
|---|--|
| ☐ sprístupnené jaskyne UNESCO | ☐ športové vyžitie (napr. horolezectvo) |
| ☐ pešia turistika | ☐ industriálne pamiatky a baníctvo |
| ☐ cykloturistika | ☐ jazdy na koni |
| ☐ kultúrne pamiatky (hrady, zámky, kaštiele) | ☐ vybrané spoločenské/kultúrne podujatie, ktoré sa tu koná (uveďte, prosím, o aké podujatie ide): |
| ☐ návšteva kostolov na Gotickej ceste, Európske kultúrne dedičstvo | |
| ☐ oddych a rekreácia | ☐ pracovné povinnosti |

10. Aký dopravný prostriedok ste využili na docestovanie do Biosférickej rezervácie Slovenský kras?

- | | |
|----------------------------------|---|
| ☐ auto | ☐ bicykel |
| ☐ autobus | ☐ lietadlo, na ktoré letisko ste pristáli? |
| ☐ tourbus | |
| ☐ vlak | ☐ pešo |
| ☐ motorka | ☐ iné možnosti, aké: |
| | |

11. Aký dopravný prostriedok využívate najviac pri cestovaní v rámci územia Biosférickej rezervácie Slovenský kras?

- | | |
|----------------------------------|----------------------------------|
| ☐ auto | ☐ vlak |
| ☐ autobus | ☐ motorka |
| ☐ tourbus | ☐ bicykel |

☐ pešo

☐ iné možnosti, aké:

.....

12. Ako by ste ohodnotili nasledovné aspekty Vášho pobytu v Biosférickej rezervácii Slovenský kras?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	nevšímam sa vyjadriť, nevyužívam
Starostlivosť o prírodu						
Údržba turistických chodníkov						
Značenie turistických chodníkov						
Sprievodcovské služby						
Krajinný ráz územia Slovenského krasu						
Dopravná dostupnosť autobusom						
Dopravná dostupnosť vlakom						
Dopravná dostupnosť autom						
Možnosti parkovania						
Ponuka tradičných produktov						
Služby TIC Rožňava						
Návšteva sprístupnených jaskýň						
Dostupnosť informácií o území						
SmartApp Slovenský kras						
Návšteva kostolov Gotickej cesty						
Kvalita služieb						
Rozmanitosť služieb						
Ponuka sortimentu v obchodoch						
Gastronómia						
Ticho, pokoj						
Možnosti stanovania v národnom parku						
Možnosti kempovania						
Služby pre ľudí s hendikepom						
Ponuka kultúrnych/spoločenských podujatí						
Ponuka cyklotrás						

Ak ste v predchádzajúcej otázke odpovedali, že ste s niečím nespokojní, uveďte, prosím, prečo.

13. Pre ochranu prírody a zachovanie jej jedinečnosti som ochotný (označte pre Vás prijateľné alternatívy):

☐ Platiť poplatok za vstup do biosférickej rezervácie v sume (doplňte sumu):

.....

☐ Dodržiavať obmedzenie zákazu vstupu do neprístupných lokalít

☐ Zapájať sa do dobrovoľníckych aktivít pri údržbe turistických trás a ich značenia

☐ iné (prosím, uveďte, čo konkrétne):

.....

14. Pri návšteve Biosférickej rezervácie Východné Karpaty/Národného parku Poloniny čerpáte informácie(označte aj viac odpovedí):

☐ z internetovej stránky NP Slovenský kras

☐ zo sociálnych sietí (Facebook, Instagram a iné) NP Slovenský kras

☐ zo sociálnych sietí (Facebook, Instagram a iné) miest a obcí na území NP Slovenský kras

☐ z iných internetových stránok, uveďte, prosím, z akých

.....

☐ z informačných centier

☐ z cestovnej kancelárie

☐ z osobného stretnutia so zamestnancami biosférickej rezervácie/NP Slovenský kras

☐ z miestnych médií (noviny, rozhlas, televízia)

☐ z celoštátnych médií (noviny, rozhlas, televízia)

☐ z organizovaných akcií biosférickej rezervácie/NP Poloniny

☐ z hotela, penziónu alebo z iného ubytovacieho zariadenia

☐ od známych a rodiny

☐ iných zdrojov (uveďte prosím, z akých)

.....

☐ nevyhľadávam informácie, čerpám z vlastných skúseností

15. Považujete dostupné informácie za dostatočné?

☐ Áno

☐ Nie, chýbajú mi informácie o (prosím, doplňte nižšie)

.....

16. **Pohlavie:** ☐ Žena ☐ Muž ☐ nechcem uviesť

17. Vek:

☐ < 18 rokov

☐ 19 – 30 rokov

☐ 31 – 40 rokov

☐ 41 – 50 rokov

☐ 51 – 60 rokov

☐ 61 rokov a viac

18. Ekonomická aktivita. Ste:

☐ nezamestnaný/á

☐ študentka/študent

☐ dôchodkyňa/dôchodca

- ☐ zamestnanec/zamestnankyňa
- ☐ na otcovskej/materej/rodičovskej dovolenke
- ☐ samostatne zárobkovo činná osoba

Ak ste samostatne zárobkovo činná osoba, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
- ☐ poľnohospodárstvo
- ☐ lesné hospodárstvo
- ☐ stavebníctvo
- ☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
- ☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

19. Pochádzate z (prosím, uveďte, mesto/obec, kraj, štát):

DOTAZNÍK obyvateľa

Biosférická rezervácia Východné Karpaty

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie ponuky Biosférickej rezervácie Východné Karpaty, ktorá je súčasťou UNESCO Programu Človek a biosféra. Biosférickú rezerváciu Východné Karpaty tvorí územie Národného parku Poloniny a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

1. Viete o tom, že sa nachádzate v Biosférickej rezervácii Východné Karpaty?

☐ Áno

☐ Nie

2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Východné Karpaty?

3. Skutočnosť, že sa nachádzate v biosférickej rezervácii Východné Karpaty, považujete za:

☐ prínos a pozitívnu vec

☐ negatívnu skutočnosť

☐ neviem

4. Viete o tom, že Biosférická rezervácia Východné Karpaty patrí medzi lokality UNESCO?

☐ Áno

☐ Nie

5. Počuli ste už o UNESCO Programe Človek a biosféra?

☐ Áno

☐ Nie

6. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Východné Karpaty?

7. Čo vnímate ako najväčšiu výhodu, že sa nachádzate v Biosférickej rezervácii Východné Karpaty?

8. Koľko dní trvá Váš pobyt v Biosférickej rezervácii Východné Karpaty?

- ☐ 1 deň
☐ 2 - 3 dni
☐ 4 - 7 dní
☐ 8 - 14 dní
☐ 15 dní a viac

V prípade, že ste označili, že Váš pobyt trvá dlhšie ako 1 deň, uveďte, prosím, akú formu ubytovania využívate:

- hotel
☐ penzión
☐ na súkromí
☐ v prenajatej chate
☐ vo vlastnom dome/apartmáne
☐ stan
☐ v ubytovaní poskytnutom zamestnávateľom
☐ pri rodine, priateľoch, známych
☐ iná možnosť a to:

.....

9. Čo je hlavným dôvodom návštevy Biosférickej rezervácie Východné Karpaty (označte, prosím, max. 3 možnosti)?

- | | |
|--|--|
| ☐ Územia európskeho významu (Bukovské vrchy, Stinská, Ublianka, Ulička) | ☐ návšteva múzeí |
| ☐ pešia turistika | ☐ návšteva drevených kostolíkov/chodníkov |
| ☐ cykloturistika | ☐ oddych a rekreácia |
| ☐ jazdy na koni | ☐ vybrané spoločenské/kultúrne podujatie, ktoré sa tu koná (uveďte, prosím, o aké podujatie ide): |
| ☐ iné športové vyžitie (napr. horolezectvo) | |
| ☐ kultúrne pamiatky (napr. Beskydský penteón) | ☐ pracovné povinnosti |
| ☐ industriálne pamiatky a baníctvo | |

10. Aký dopravný prostriedok ste využili na docestovanie do Biosférickej rezervácie Východné Karpaty?

- | | |
|----------------------------------|---|
| ☐ auto | ☐ bicykel |
| ☐ autobus | ☐ lietadlo, na ktoré letisko ste pristáli? |
| ☐ tourbus | |
| ☐ vlak | ☐ pešo |
| ☐ motorka | ☐ iné možnosti, aké: |
| | |

11. Aký dopravný prostriedok používate najviac pri cestovaní v rámci územia Biosférickej rezervácie Východné Karpaty?

- ☐ auto
☐ autobus
☐ tourbus
☐ vlak

- ☐ motorka
☐ bicykel
☐ pešo
☐ iné možnosti, aké:

.....

12. Ako by ste ohodnotili nasledovné aspekty Vášho pobytu v Biosférickej rezervácii Východné Karpaty?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	nevšímam sa, nevyužívam
Starostlivosť o prírodu						
Údržba turistických chodníkov						
Značenie turistických chodníkov						
Sprievodcovské služby						
Krajinný ráz územia						
Dopravná dostupnosť autobusom						
Dopravná dostupnosť vlakom						
Dopravná dostupnosť autom						
Možnosti parkovania						
Ponuka tradičných produktov						
Služby TIC v Novej Sedlici						
Návšteva území európskeho významu						
Dostupnosť informácií o území						
SmartApp NP Poloniny (Bieszczady & MRB Karpaty Wschodnie)						
Návšteva pamiatok (drevených kostolíkov, panteón, múzeá a pod.)						
Kvalita služieb						
Rozmanitosť služieb						
Ponuka sortimentu v obchodoch						
Gastronómia						
Ticho, pokoj						
Možnosti stanovania v národnom parku						
Možnosti kempovania						
Služby pre ľudí s hendikepom						
Ponuka kultúrnych/spoločenských podujatí						
Ponuka cyklotrás						

Ak ste v predchádzajúcej otázke odpovedali, že ste s niečím nespokojní, uveďte, prosím, prečo.

13. Pre ochranu prírody a zachovanie jej jedinečnosti som ochotný (označte pre Vás prijateľné alternatívy):

☐ Platiť poplatok za vstup do biosférickej rezervácie v sume (doplňte sumu):

.....

☐ Dodržiavať obmedzenie zákazu vstupu do neprístupných lokalít

☐ Zapájať sa do dobrovoľníckych aktivít pri údržbe turistických trás a ich značenia

☐ iné (prosím, uveďte, čo konkrétne):

.....

14. Pri návšteve Biosférickej rezervácie Východné Karpaty/Národného parku Poloniny čerpáte informácie(označte aj viac odpovedí):

☐ z internetovej stránky NP Poloniny

☐ zo sociálnych sietí (Facebook, Instagram a iné) NP Poloniny

☐ zo sociálnych sietí (Facebook, Instagram a iné) miest a obcí na území NP Poloniny

☐ z iných internetových stránok, uveďte, prosím, z akých

.....

☐ z informačných centier

☐ z cestovnej kancelárie

☐ z osobného stretnutia so zamestnancami biosférickej rezervácie/NP Poloniny

☐ z miestnych médií (noviny, rozhlas, televízia)

☐ z celoštátnych médií (noviny, rozhlas, televízia)

☐ z organizovaných akcií biosférickej rezervácie/NP Poloniny

☐ z hotela, penziónu alebo z iného ubytovacieho zariadenia

☐ od známych a rodiny

☐ iných zdrojov (uveďte prosím, z akých)

.....

☐ nevyhľadávam informácie, čerpám z vlastných skúseností

15. Považujete dostupné informácie za dostatočné?

☐ Áno

☐ Nie, chýbajú mi informácie o (prosím, doplňte nižšie)

.....

16. Pohlavie: ☐ Žena ☐ Muž ☐ nechcem uviesť

17. Vek:

☐ < 18 rokov

☐ 19 – 30 rokov

☐ 31 – 40 rokov

☐ 41 – 50 rokov

☐ 51 – 60 rokov

☐ 61 rokov a viac

18. Ekonomická aktivita. Ste:

- ☐ nezamestnaný/á
- ☐ študentka/študent
- ☐ dôchodkyňa/dôchodca
- ☐ zamestnanec/zamestnankyňa
- ☐ na otcovskej/materej/rodičovskej dovolenke
- ☐ samostatne zárobkovo činná osoba

Ak ste samostatne zárobkovo činná osoba, alebo zamestnaný, uveďte v akom odvetví:

- ☐ priemysel
- ☐ poľnohospodárstvo
- ☐ lesné hospodárstvo
- ☐ stavebníctvo
- ☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
- ☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

19. Pochádzate z (prosím, uveďte, mesto/obec, kraj, štát):

DOTAZNÍK turisti

Biosférická rezervácia Tatry

Vážená pani, vážený pán,

dovoľujeme si Vás poprosiť o vyplnenie nasledujúceho dotazníka, ktorý je zameraný na hodnotenie ponuky Biosférickej rezervácie Tatry, ktorá je súčasťou UNESCO Programu Človek a biosféra. Biosférickú rezerváciu Tatry tvorí územie Tatranského národného parku a jeho ochranné pásmo. Výsledky výskumu budú slúžiť ako podklad pre vypracovanie stratégie rozvoja tohto územia. Za čas, ktorý venujete vyplneniu dotazníka, vopred veľmi pekne ďakujeme.

Za výskumný tím projektu,

Katarína Vitálišová

Katedra verejnej ekonomiky a regionálneho rozvoja

Ekonomická fakulta Univerzity Mateja Bela v Banskej Bystrici

katarina.vitalisova@umb.sk

- 1. Viete o tom, že sa nachádzate v Biosférickej rezervácii Tatry?**
☐ Áno ☐ Nie
- 2. Čo Vám prvé napadne, keď počujete spojenie Biosférická rezervácia Tatry?**
-
- 3. Skutočnosť, že sa nachádzate v biosférickej rezervácii Tatry, považujete za:**
☐ prínos a pozitívnu vec ☐ negatívnu skutočnosť ☐ neviem
- 4. Viete o tom, že Biosférická rezervácia Tatry patrí medzi lokality UNESCO?**
☐ Áno ☐ Nie
- 5. Počuli ste už o UNESCO Programe Človek a biosféra?**
☐ Áno ☐ Nie
- 6. Čo vnímate ako najväčší problém v rozvoji územia Biosférickej rezervácie Tatry?**
-
- 7. Čo vnímate ako najväčšiu výhodu, že sa nachádzate v Biosférickej rezervácii Tatry?**
-
- 8. Koľko dní trvá Váš pobyt v Biosférickej rezervácii Tatry?**
☐ 1 deň

- ☐ 2 - 3 dni
- ☐ 4 - 7 dní
- ☐ 8 - 14 dní
- ☐ 15 dní a viac

V prípade, že ste označili, že Vás pobyt trvá dlhšie ako 1 deň, uveďte, prosím, akú formu ubytovania využívate:

- ☐ hotel
- ☐ penzión
- ☐ na súkromí
- ☐ v prenajatej chate
- ☐ vo vlastnom dome/apartmáne
- ☐ stan
- ☐ v ubytovaní poskytnutom zamestnávateľom
- ☐ pri rodine, priateľoch, známym
- ☐ iná možnosť a to:

.....

9. Čo je hlavným dôvodom návštevy Biosférickej rezervácie Tatry (označte, prosím, max. 3 možnosti)?

- | | |
|--|--|
| ☐ krása prírody a objavovanie krajiny | ☐ oddych a rekreácia |
| ☐ turistika | ☐ športové vyžitie (napr. lyžovanie, bicyklovanie, horolezectvo) |
| ☐ pokoj, ktorý tu nájdem | ☐ lanovky |
| ☐ vybrané spoločenské/kultúrne podujatie, ktoré sa tu koná (uveďte, prosím, o aké podujatie ide): | ☐ komerčné atrakcie (dom ilúzie, súkromné zoo, lanové lezecké dráhy atď.) |
| | ☐ aquaparky |
| ☐ kúpeľný pobyt | ☐ pracovné povinnosti |

10. Aký dopravný prostriedok ste využili na docestovanie do Biosférickej rezervácie Tatry?

- | | |
|----------------------------------|---|
| ☐ auto | ☐ bicykel |
| ☐ autobus | ☐ lietadlo, na ktoré letisko ste pristáli? |
| ☐ tourbus | |
| ☐ vlak | ☐ pešo |
| ☐ motorka | ☐ iné možnosti, aké: |
| | |

11. Aký dopravný prostriedok využívate najviac pri cestovaní v rámci územia Biosférickej rezervácie Tatry?

- | | |
|----------------------------------|---|
| ☐ auto | ☐ motorka |
| ☐ autobus | ☐ bicykel |
| ☐ tourbus | ☐ pešo |
| ☐ vlak | ☐ iné možnosti, aké: |
| | |

12. Ako by ste ohodnotili nasledovné aspekty Vášho pobytu v Biosférickej rezervácii Tatry?

	spokojný	skôr spokojný	ani spokojný, ani nespokojný	skôr nespokojný	nespokojný	nevšímam sa vyjadriť, nevyužívam
Starostlivosť o prírodu Tatier						
Údržba turistických chodníkov						
Značenie turistických chodníkov						
Sprievodcovské služby						
Krajinný ráz územia Tatier						
Architektúra stavieb Tatier						
Dopravná dostupnosť Tatier autobusom						
Dopravná dostupnosť Tatier vlakom						
Dopravná dostupnosť Tatier autom						
Možnosti parkovania						
Ponuka tradičných produktov						
Ponuka karty Tatry Card						
Ponuka karty Liptov Region Card						
Ponuka karty Orava Card						
Zmena rázu krajiny						
Hustota zástavby Tatier						
Ticho, pokoj						
Kvalita služieb						
Rozmanitosť služieb						
Ponuka sortimentu v obchodoch						
Gastronómia						
Tatranská električná železnica						
Lanovky						
Aquaparky						
Komerčné atrakcie (lanové dráhy, domy ilúzií, súkromné ZOO a pod.)						

Ak ste v predchádzajúcej otázke odpovedali, že ste s niečím nespokojní, uveďte, prosím, prečo.

13. Pre ochranu prírody a zachovanie jej jedinečnosti som ochotný (označte pre Vás prijateľné alternatívy):

☐ Platiť poplatok za vstup do biosférickej rezervácie v sume (doplňte sumu):

.....

- ☐ Dodržiavať obmedzenie zákazu vstupu do neprístupných lokalít
☐ Zapájať sa do dobrovoľníckych aktivít pri údržbe turistických trás a ich značenia

☐ iné (prosím, uveďte, čo konkrétne):
.....

14. Pri návšteve Biosférickej rezervácie Tatra/Tatranského národného parku čerpáte informácie(označte aj viac odpovedí):

- ☐ z internetovej stránky TANAPu
☐ zo sociálnych sietí (Facebook, Instagram a iné) TANAPu
☐ zo sociálnych sietí (Facebook, Instagram a iné) miest a obcí na území TANAPu
☐ z iných internetových stránok, uveďte, prosím, z akých

-
☐ z informačných centier
☐ z cestovnej kancelárie
☐ z osobného stretnutia so zamestnancami biosférickej rezervácie/TANAPu
☐ z miestnych médií (noviny, rozhlas, televízia)
☐ z celoštátnych médií (noviny, rozhlas, televízia)
☐ z organizovaných akcií biosférickej rezervácie/ TANAPu
☐ z hotela, penziónu alebo z iného ubytovacieho zariadenia
☐ od známych a rodiny
☐ iných zdrojov (uveďte prosím, z akých)

.....
☐ nevyhľadávam informácie, čerpám z vlastných skúseností

15. Považujete dostupné informácie za dostatočné?

- ☐ Áno
☐ Nie, chýbajú mi informácie o (prosím, doplňte nižšie)

.....
16. Pohlavie: ☐ Žena ☐ Muž ☐ nechcem uviesť

17. Vek:

- | | |
|--|--|
| ☐ < 18 rokov | ☐ 41 – 50 rokov |
| ☐ 19 – 30 rokov | ☐ 51 – 60 rokov |
| ☐ 31 – 40 rokov | ☐ 61 rokov a viac |

18. Ekonomická aktivita. Ste:

- ☐ nezamestnaný/á
☐ študentka/študent
☐ dôchodkyňa/dôchodca
☐ zamestnanec/zamestnankyňa
☐ na otcovskej/materej/rodičovskej dovolenke
☐ samostatne zárobkovo činná osoba

Ak ste samostatne zárobkovo činná osoba, alebo zamestnaný, uveďte v akom odvetví:

☐ priemysel

- ☐ poľnohospodárstvo
- ☐ lesné hospodárstvo
- ☐ stavebníctvo
- ☐ ostatné výrobné odvetvia (nákup, nákladná doprava, a pod.)
- ☐ ostatné nevýrobné odvetvia (napr. školstvo, sociálne služby, zdravotníctvo a pod.)

19. Pochádzate z (prosím, uveďte, mesto/obec, kraj, štát):

Zdroj: vlastné spracovanie

**Príloha 15 Dotazník strategické plánovanie rozvoja biosférických rezervácií pre
biosférické rezervácie lokalizované na európskom kontinente**

***Strategic planning of biosphere reserves development in European
Union***

Dear Madam or Sir,

We would like to ask You to fill in the following questionnaire, which is aimed at assessing the strategic planning of biosphere reserves development in European Union. The results of the research will serve as a basis for the methodology for development strategy for these areas.

Thank You in advance for your time in completing the questionnaire

On behalf of the research team,

Mária Vavrušová (maria.vavrusova@umb.sk),

Department of Public Economics and Regional Development,

Faculty of Economics, Matej Bel University in Banská Bystrica, Slovakia

1. Name of the biosphere reserve

2. Country you represent

3. Type of biosphere reserve:

☐ single ☐ bilateral ☐ trilateral ☐ other:.....

4. Your current position in the biosphere reserve:

5. Your age

☐ < 18	☐ 41 - 50
☐ 19 – 30	☐ 51 – 60
☐ 31 - 40	☐ 61 +

6. Area of education achieved

☐ business, economics and management	☐ natural and applied sciences
☐ humanities	☐ social sciences
	☐ other

7. Are the biosphere reserves in your country integrated in the national/regional legislation?

☐ Yes ☐ No

8. What is the name of the biosphere reserve's governing body and its legal form?:

9. What are the competences of such a body/ies in relation to the biosphere reserve (check all that apply)?

- ☐ Planning of biosphere reserve development
- ☐ Approval of biosphere reserve strategic documents
- ☐ Educating and developing the personal skills
- ☐ Analysing of biosphere reserve
- ☐ Organising of activities within the biosphere reserve
- ☐ Financial management of biosphere reserve
- ☐ Staff building and managing, setting of roles and responsibilities of employees

- ☐ Strategic leadership and setting direction of biosphere reserve
- ☐ Coordinating of stakeholders' activities in biosphere reserve
- ☐ Ensuring of stakeholders' participation
- ☐ Decision-making on biosphere reserve issues
- ☐ Controlling and evaluating of progress in biosphere reserve
- ☐ Others:.....

10. What is a number of staff responsible exclusively for biosphere reserve agenda?

11. Is there a cooperative (participative) governance mechanism in place?

☐ Yes

☐ No

12. If yes, which stakeholders do you involve? (check all that apply)

- | | |
|--|---|
| ☐ Citizens | ☐ NGOs in the cultural field |
| ☐ Entrepreneurs | ☐ Government offices and bodies |
| ☐ Church | ☐ Media |
| ☐ Local self-governments | ☐ Scientific institutions, higher education institutions, universities |
| ☐ NGOs in the educational field | ☐ Destination management organisations |
| ☐ NGOs in the environmental field | ☐ Others:..... |
| ☐ NGOs in the social field | |

13. Is there a cooperative (participative) governance open ended?

☐ Yes

☐ No

14. To which 2030 Agenda objectives does/n't the biosphere reserve contribute through its activities

	Agree	Rather agree	Neither agree, nor disagree	Rather disagree	Disagree	I don' know
Goal 1. End poverty in all its forms everywhere						
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture						
Goal 3. Ensure healthy lives and promote well-being for all at all ages						
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all						
Goal 5. Achieve gender equality and empower all women and girls						
Goal 6. Ensure availability and sustainable management of water and sanitation for all						
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all						
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all						
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation						
Goal 10. Reduce inequality within and among countries						
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable						
Goal 12. Ensure sustainable consumption and production patterns						
Goal 13. Take urgent action to combat climate change and its impacts						
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development						
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss						
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels						
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development						

15. Is there a plan for strategical development of biosphere reserve?

☐ Yes

☐ No

16. If yes, what is the duration of the plan for strategical development(in years)?

17. If yes, who is the author(*check all that apply*)

- ☐ self-workmanship of plan
- ☐ private subjects
- ☐ government representatives
- ☐ non-government organisations
- ☐ scientific community or university
- ☐ other biosphere reserves
- ☐ other:.....

18. Which stakeholders do you cooperate with at different phases of the strategic planning of the development of the biosphere reserve?(*check all that apply*)

	Formulating the vision	Formulating the objectives	Data collection – analysis	Strategy implementation	Control and monitoring	Communication on the creation of the plan	Cooperation in commenting on the plan
Citizens							
Entrepreneurs							
Church							
Local self-governments							
NGOs in the educational field							
NGOs in the environmental field							
NGOs in the social field							
NGOs in the cultural field							
Government offices and bodies							
Media							
Scientific institutions, higher education institutions, universities							

Destination management organisations							
Others							

19. What types of participatory governance tools do you use in different phases in the strategic planning of the development of biosphere reserve? (check all that apply)

	Formulating the vision	Formulating the objectives	Data collection – analysis	Strategy implementation	Control and monitoring	Communication on the creation co of the plan	Cooperation in commenting on the plan
Public meeting and discussion/hearing							
Questionnaire survey, polls among stakeholders							
Participation of stakeholders in working groups							
Discussion forum with representatives of stakeholders' groups							
Contacting stakeholders by post, e-mail, newsletters, journals, etc.							
Open data portal							
Open data visualisations/applications							
Databases for sharing information within the municipal office							
Website of biosphere reserve							
Online communication via social networks							
Participatory budgeting (online and offline)							
Hackathons and competitions for stakeholders							
Educational activities oriented to stakeholders and employees of biosphere reserve							
Organising events							
Other:.....							

20. What types of participatory governance tools do you use in relation to the stakeholders you cooperate with? (check all that apply)

[illegible]

21. What is the scope of the biosphere reserve plan for strategical development?

	Agree	Rather agree	Neither agree, nor disagree	Rather disagree	Disagree	I don' know
Organizational/governance structure of biosphere reserve						
Analysis of the territory and its strengths, weaknesses, opportunities and threats						
Analysis of the socio-economic potential of the territory and its strengths, weaknesses, opportunities, and threats						
Analysis of the socio-demographic potential of the territory and its strengths, weaknesses, opportunities, and threats						
Analysis of the innovation potential of the territory and its strengths, weaknesses, opportunities, and threats						
Define of priorities for the biosphere reserve, including from a stakeholder perspective						
Scenario development, including an analysis of external pressures and internal vulnerabilities						
A long-term vision						
Medium-term goals related to vision, accompanied by indicators and benchmarks						
Priority projects related to medium-term goals						
System of monitoring strategy implementation						
Other:.....						

22. What are the weaknesses of the current planning process?

23. Is there any other plan/s in relation to biosphere reserve?

☐ yes

☐ no

24. If yes, please describe a scope of plan/s:

25. If there is any plan, please describe, which sectoral plans apply to the area of the biosphere reserve:

26. Is there any other internal evaluation for the strategic development of the biosphere reserve other than the periodic evaluation?

☐ Yes

☐ No

27. If yes, how often in one periodic cycle (10 years) do you conduct this other internal evaluation?

28. Is the management plan(s) and strategy/ies available to public?

☐ Yes

☐ No

29. Is there a business plan or fund raising strategy developed for individual biosphere reserves?

☐ Yes

☐ No

30. Is there a cooperative financing mechanism, e. g, agreed/coordinated financing by multiple stakeholders

☐ Yes

☐ No

31. Is there a biosphere reserve specific communication plan for biosphere reserve agenda?

☐ Yes

☐ No

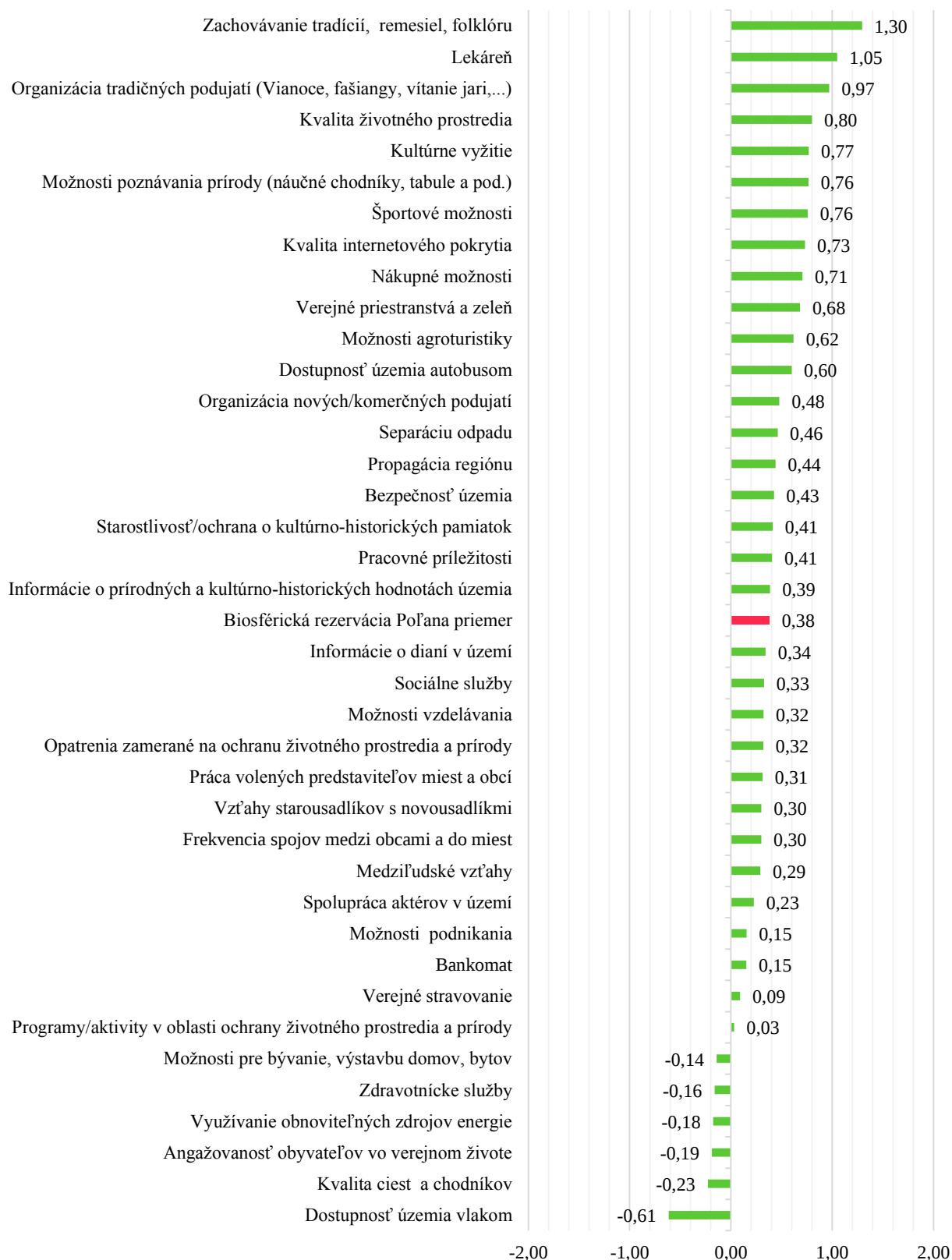
32. Do you have a unified logo and brand visual of biosphere reserve implemented in your marketing?

☐ Yes

☐ No

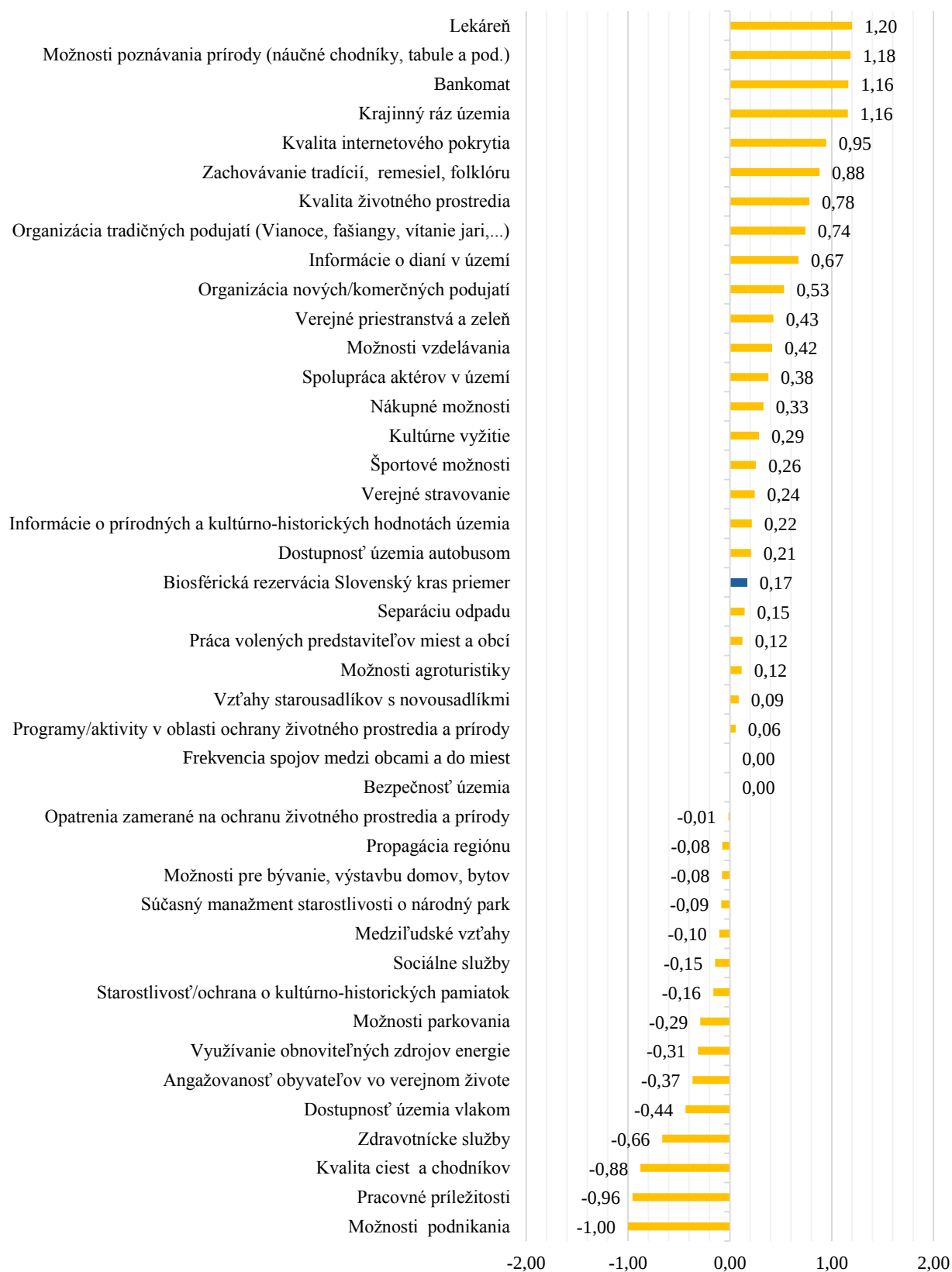
Zdroj: vlastné spracovanie

Príloha 16 Hodnotenie oblastí kvality života obyvateľmi Biosférickej rezervácie Poľana



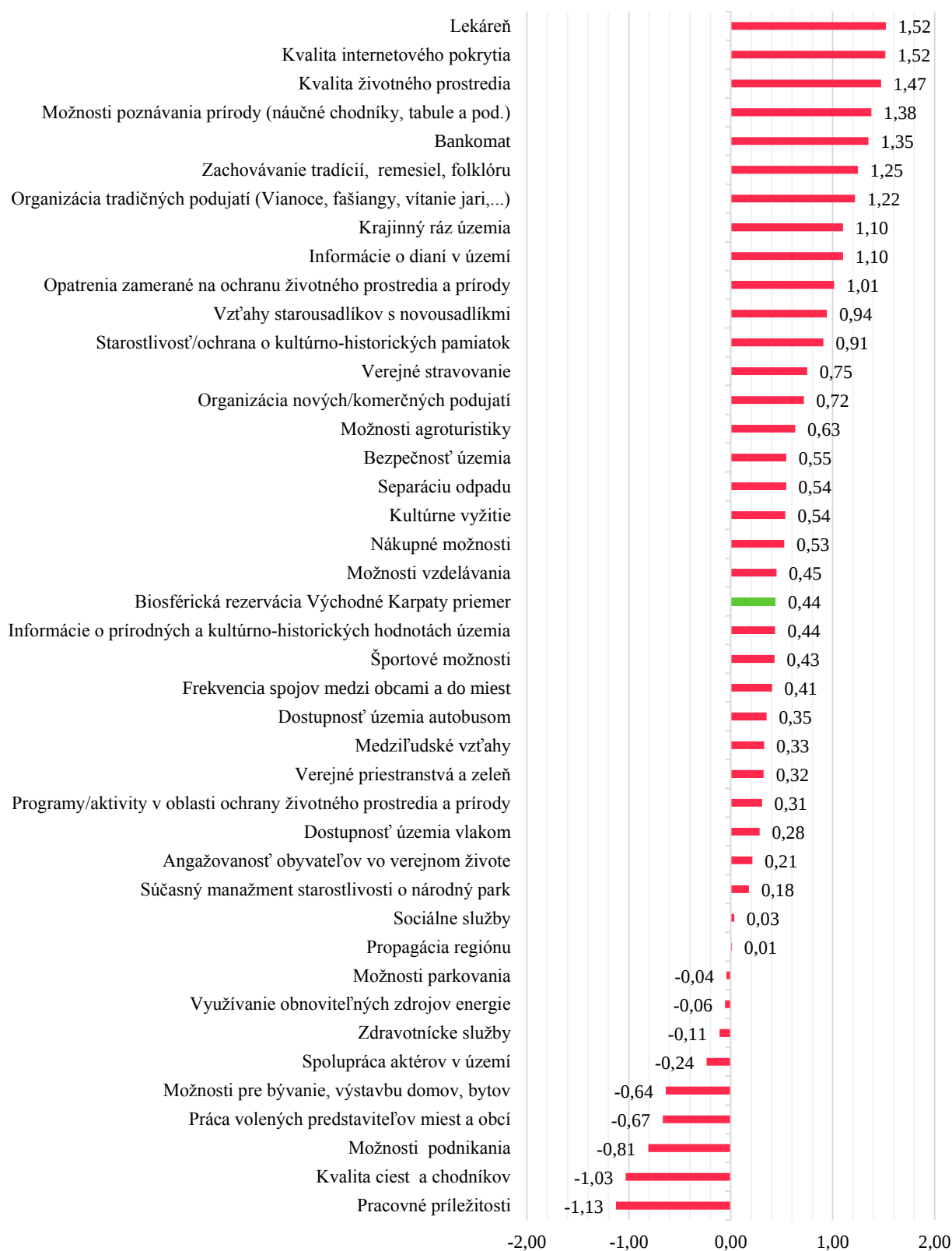
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 17 Hodnotenie oblastí kvality života obyvateľmi Biosférickej rezervácie Slovenský kras



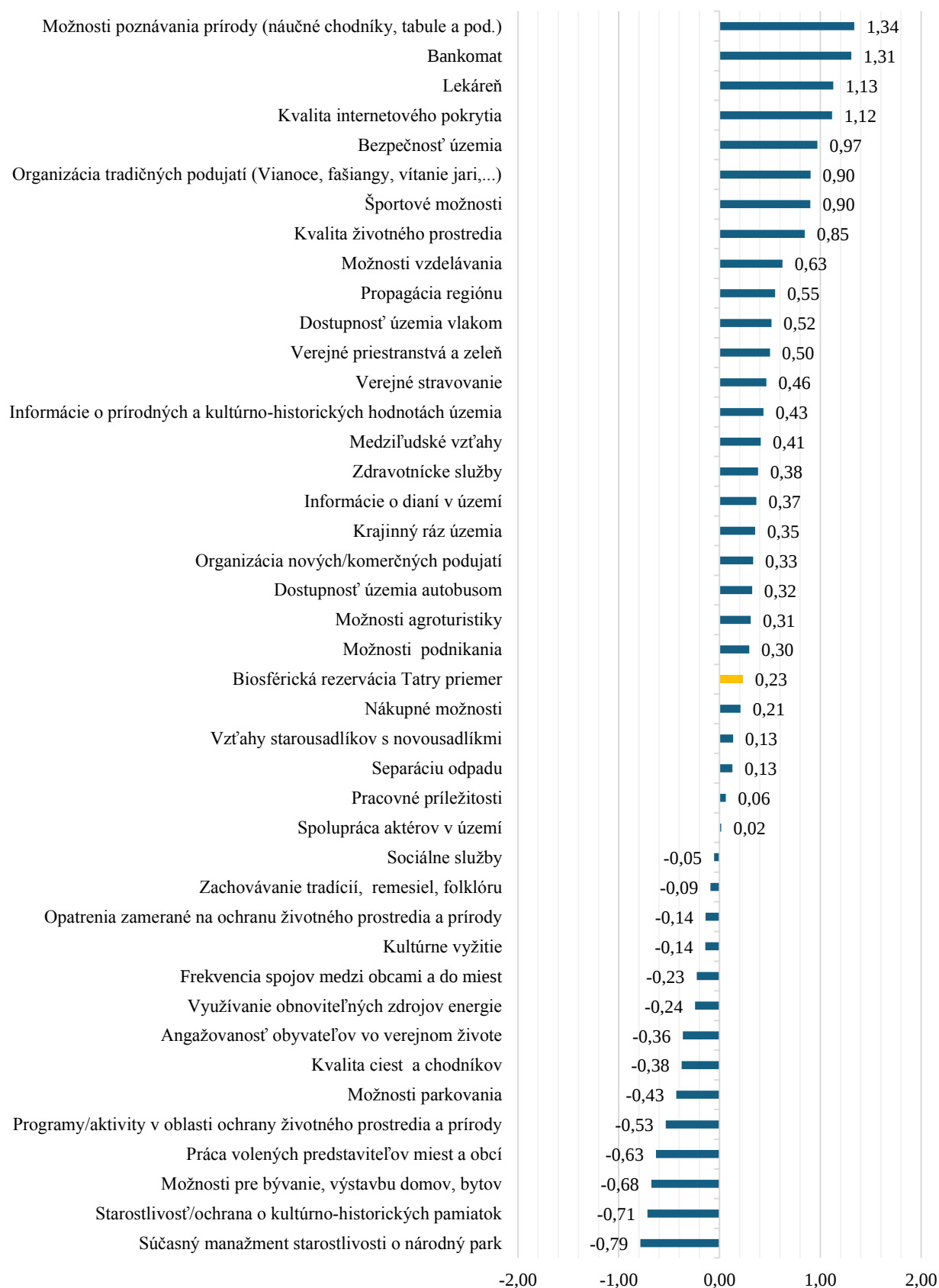
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 18 Hodnotenie oblastí kvality života obyvateľmi Biosférickej rezervácie Východné Karpaty



Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 19 Hodnotenie oblastí kvality života obyvateľmi Biosférickej rezervácie Tatry



Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 20 Friedman test hodnotenia jednotlivých oblastí kvality života miestnymi obyvateľmi v biosférických rezerváciách na území Slovenskej republiky

Biosférická rezervácia Poľana		Biosférická rezervácia Slovenský kras	
	Mean Rank		Mean Rank
Zachovávanie tradícií, remesiel, folklóru	28,67	Krajinný ráz územia	30,32
Lekáreň	26,51	Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	29,63
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)	25,18	Lekáreň	29,43
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	24,23	Bankomat	29,25
Kvalita životného prostredia	23,74	Zachovávanie tradícií, remesiel, folklóru	28,04
Verejné priestranstvá a zeleň	23,52	Kvalita internetového pokrytia	27,86
Kultúrne vyžitie	23,39	Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari,...)	26,33
Športové možnosti	23,27	Kvalita životného prostredia	26,09
Nákupné možnosti	22,56	Informácie o dianí v území	24,76
Možnosti agroturistiky	22,56	Organizácia komerčných podujatí	24,23
Kvalita internetového pokrytia	22,16	Verejné priestranstvá a zeleň	23,65
Separáciu odpadu	21,31	Nákupné možnosti	23,38
Dostupnosť územia autobusom	21,08	Možnosti vzdelávania	22,99
Ochrana kultúrno-historických pamiatok	20,27	Kultúrne vyžitie	22,34
Organizácia nových podujatí	20,17	Spolupráca aktérov v území	22,09
Bezpečnosť	20,03	Dostupnosť územia autobusom	21,87
Propagácia regiónu	20,02	Informácie o prírodných a kultúrno-historických hodnotách územia	21,43
Informácie o prírodných a kultúrno-historických hodnotách územia	19,55	Športové možnosti	21,38
Bankomat	19,18	Možnosti agroturistiky	20,63
Opatrenia zamerané na ochranu životného prostredia a prírody	19,06	Verejné stravovanie	20,51
Pracovné príležitosti	18,92	Separáciu odpadu	20,32
Vzťahy starousedlíkov s novousedlíkmi	18,81	Vzťahy starousedlíkov s novousedlíkmi	20,22
Práca volených predstaviteľov miest a obcí	18,69	Aktivity v oblasti ochrany životného prostredia a prírody	20,20
Sociálne služby	18,65	Práca volených predstaviteľov miest a obcí	20,00
Frekvencia spojov medzi obcami a do miest	18,59	Frekvencia spojov medzi obcami a do miest	19,83
Možnosti vzdelávania	18,44	Propagácia regiónu	19,72
Medziľudské vzťahy	17,82	Súčasný manažment starostlivosti o národný park	19,24
Informácie o dianí v území	17,67	Bezpečnosť územia	18,65
Verejné stravovanie	17,40	Opatrenia zamerané na ochranu životného prostredia a prírody	18,50
Spolupráca aktérov v území	16,04	Medziľudské vzťahy	18,44
Možnosti podnikania	15,63	Možnosti pre bývanie, výstavbu domov, bytov	18,28
Programy v oblasti ochrany životného prostredia a prírody	15,08	Sociálne služby	18,02
Angažovanosť obyvateľov vo verejnom živote	14,75	Využívanie obnoviteľných zdrojov energie	17,81
Možnosti pre bývanie, výstavbu domov, bytov	14,56	Starostlivosť o kultúrno-historické pamiatky	17,50

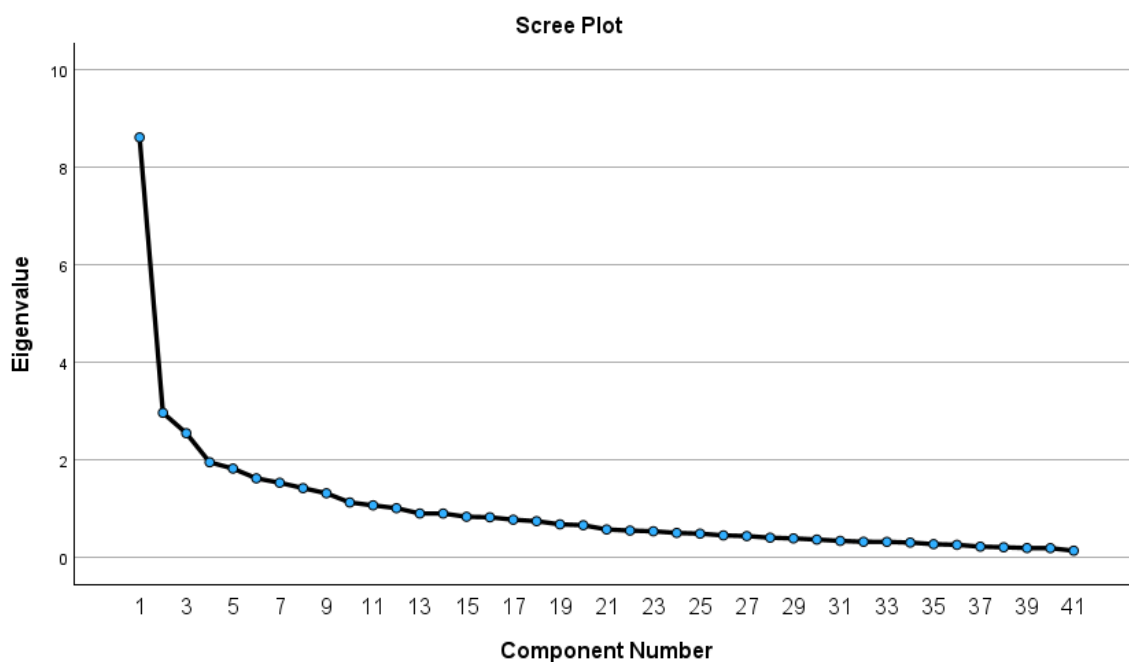
Zdravotnícke služby	13,92	Možnosti parkovania	16,83
Využívanie obnoviteľných zdrojov energie	13,84	Dostupnosť územia vlakom	16,47
Kvalita ciest a chodníkov	13,63	Angažovanosť obyvateľov vo verejnom živote	16,31
Dostupnosť územia vlakom	12,07	Zdravotnícke služby	13,51
		Možnosti podnikania	11,83
		Pracovné príležitosti	11,66
		Kvalita ciest a chodníkov	11,46

Biosférická rezervácia Východné Karpaty		Biosférická rezervácia Tatry	
	Mean Rank		Mean Rank
Lekárneň	31,28	Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	30,22
Kvalita životného prostredia	30,77	Bankomat	29,84
Kvalita internetového pokrytia	30,65	Lekárneň	29,04
Možnosti poznávania prírody (náučné chodníky, tabule a pod.)	29,72	Kvalita internetového pokrytia	27,70
Bankomat	29,33	Športové možnosti	27,08
Zachovávanie tradícií, remesiel, folklóru	28,21	Bezpečnosť územia	26,97
Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari a iné)	27,84	Kvalita životného prostredia	26,16
Informácie o dianí v území	27,37	Organizácia tradičných podujatí (Vianoce, fašiangy, víťanie jari, Tatranské leto a iné)	25,76
Krajinný ráz územia	27,13	Propagácia regiónu	23,69
Starostlivosť o kultúrno-historické pamiatky	25,63	Verejné priestranstvá a zeleň	23,69
Vzťahy starousadlíkov s novousadlíkmi	24,92	Možnosti vzdelávania	23,38
Opatrenia zamerané na ochranu životného prostredia a prírody	23,70	Verejné stravovanie	23,16
Bezpečnosť územia	22,88	Informácie o prírodných a kultúrno-historických hodnotách územia	22,98
Organizácia komerčných podujatí	22,86	Dostupnosť územia vlakom	22,94
Verejné stravovanie	22,29	Krajinný ráz územia	22,69
Separáciu odpadu	22,00	Zdravotnícke služby	22,29
Možnosti agroturistiky	21,63	Medziľudské vzťahy	21,97
Nákupné možnosti	21,22	Informácie o dianí v území	21,79
Kultúrne vyžitie	21,20	Organizácia komerčných podujatí	21,78
Možnosti vzdelávania	20,86	Možnosti podnikania	21,51
Verejné priestranstvá a zeleň	20,83	Nákupné možnosti	21,13
Frekvencia spojov medzi obcami a do miest	20,46	Dostupnosť územia autobusom	21,08
Informácie o prírodných a kultúrno-historických hodnotách územia	20,45	Možnosti agroturistiky	20,59
Dostupnosť územia autobusom	20,02	Vzťahy starousadlíkov s novousadlíkmi	19,82
Športové možnosti	19,91	Separáciu odpadu	19,76
Medziľudské vzťahy	19,90	Pracovné príležitosti	19,28
Dostupnosť územia vlakom	19,86	Sociálne služby	19,15
Aktivity v oblasti ochrany životného prostredia a prírody	19,19	Spolupráca aktérov v území	18,67
Angažovanosť obyvateľov vo verejnom živote	18,48	Zachovávanie tradícií, remesiel, folklóru	18,35
Súčasný manažment starostlivosti o národný park	17,83	Kultúrne vyžitie	17,76

Sociálne služby	17,23	Opatrenia zamerané na ochranu životného prostredia a prírody	17,53
Možnosti parkovania	17,22	Frekvencia spojov medzi obcami a do miest	17,02
Propagácia regiónu	17,16	Využívanie obnoviteľných zdrojov energie	16,69
Zdravotnícke služby	16,63	Programy v oblasti ochrany životného prostredia a prírody	16,01
Využívanie obnoviteľných zdrojov energie	16,05	Angažovanosť obyvateľov vo verejnom živote	15,88
Spolupráca aktérov v území	15,41	Možnosti parkovania	15,76
Práca volených predstaviteľov miest a obcí	12,38	Kvalita ciest a chodníkov	15,67
Možnosti pre bývanie, výstavbu domov, bytov	12,27	Možnosti pre bývanie, výstavbu domov, bytov	14,31
Možnosti podnikania	10,15	Súčasný manažment starostlivosti o národný park	14,22
Pracovné príležitosti	9,28	Práca volených predstaviteľov miest a obcí	14,05
Kvalita ciest a chodníkov	8,78	Starostlivosť o kultúrno-historické pamiatky	13,61

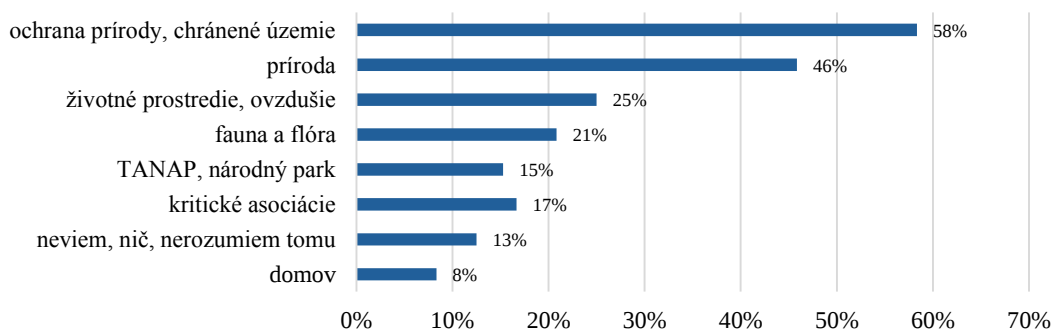
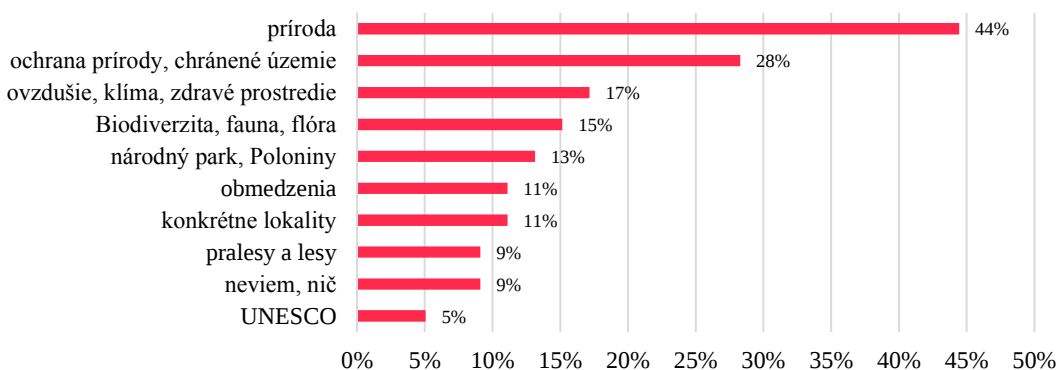
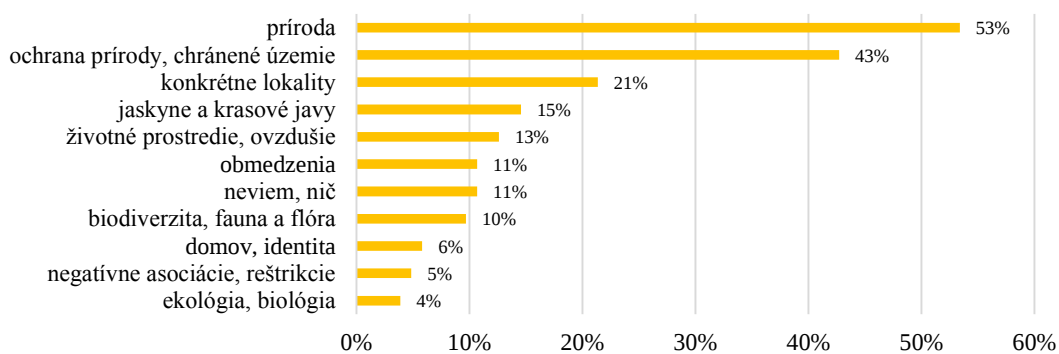
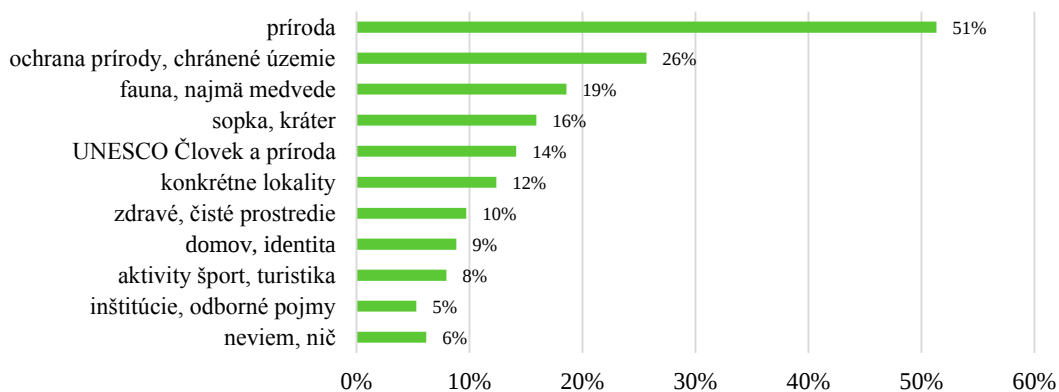
Zdroj: vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 21 Scree plot faktorovej analýzy hodnotenia jednotlivých oblastí kvality života miestnymi obyvateľmi v biosférických rezerváciách na území Slovenskej republiky



Zdroj: výstup SPSS

Príloha 22 Čo ako prvé napadne miestnym obyvateľom, keď počujú spojenie biosférická rezervácia s doplnením názvu vybranej biosférickej rezervácie



● Biosférická rezervácia Poľana

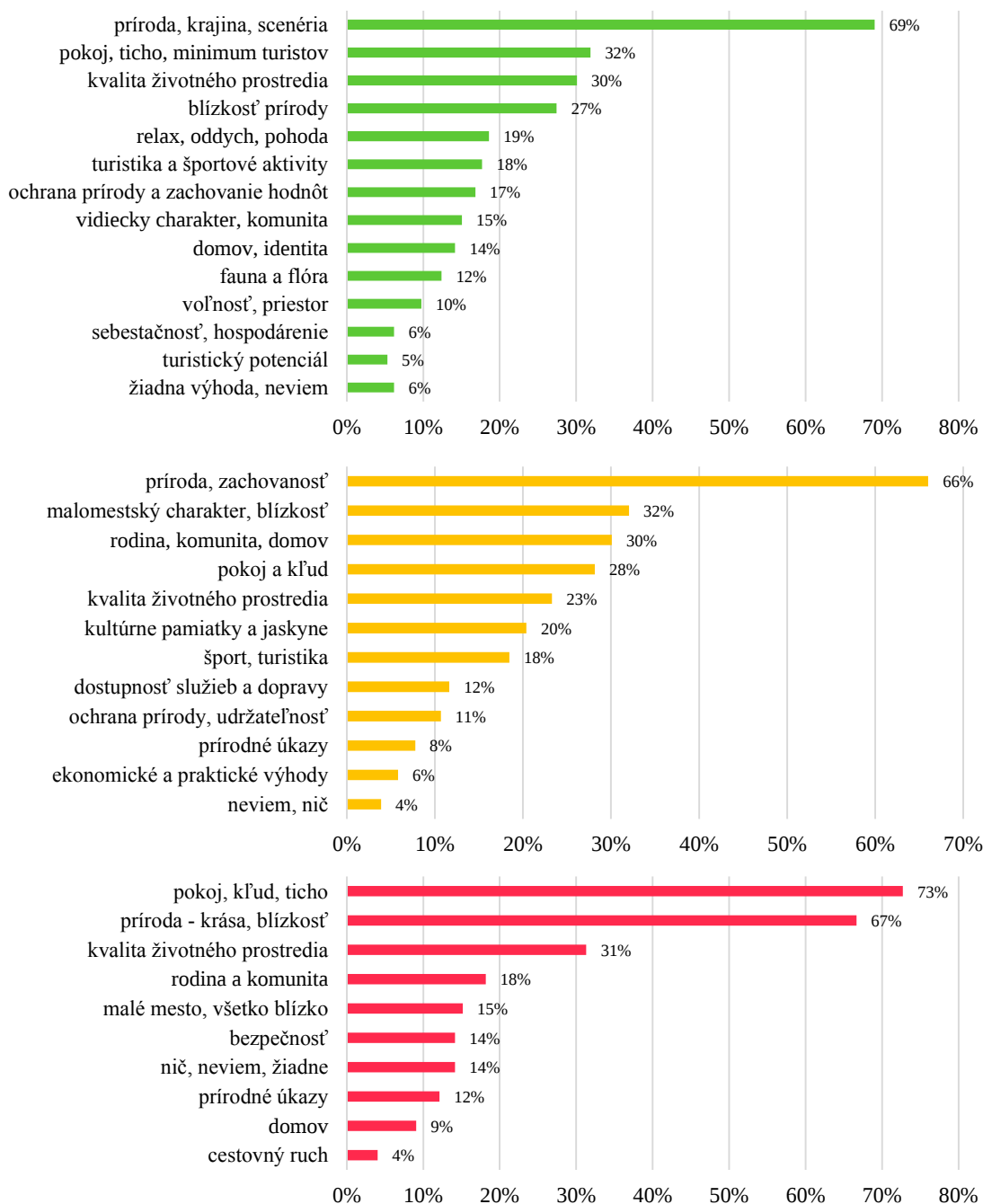
● Biosférická rezervácia Slovenský kras

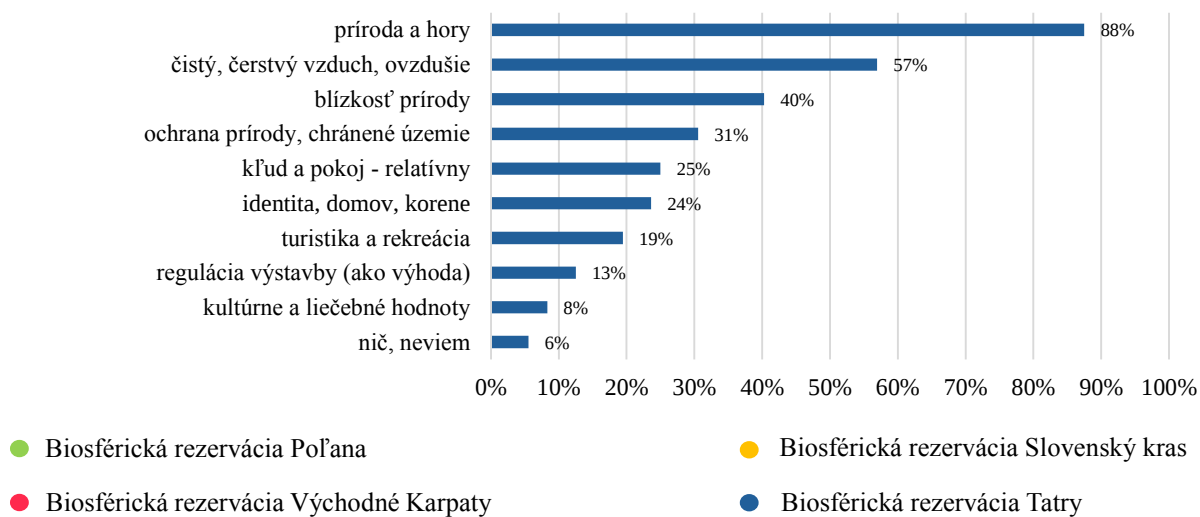
● Biosférická rezervácia Východné Karpaty

● Biosférická rezervácia Tatry

Zdroj: vlastné spracovanie výsledkov výskumu

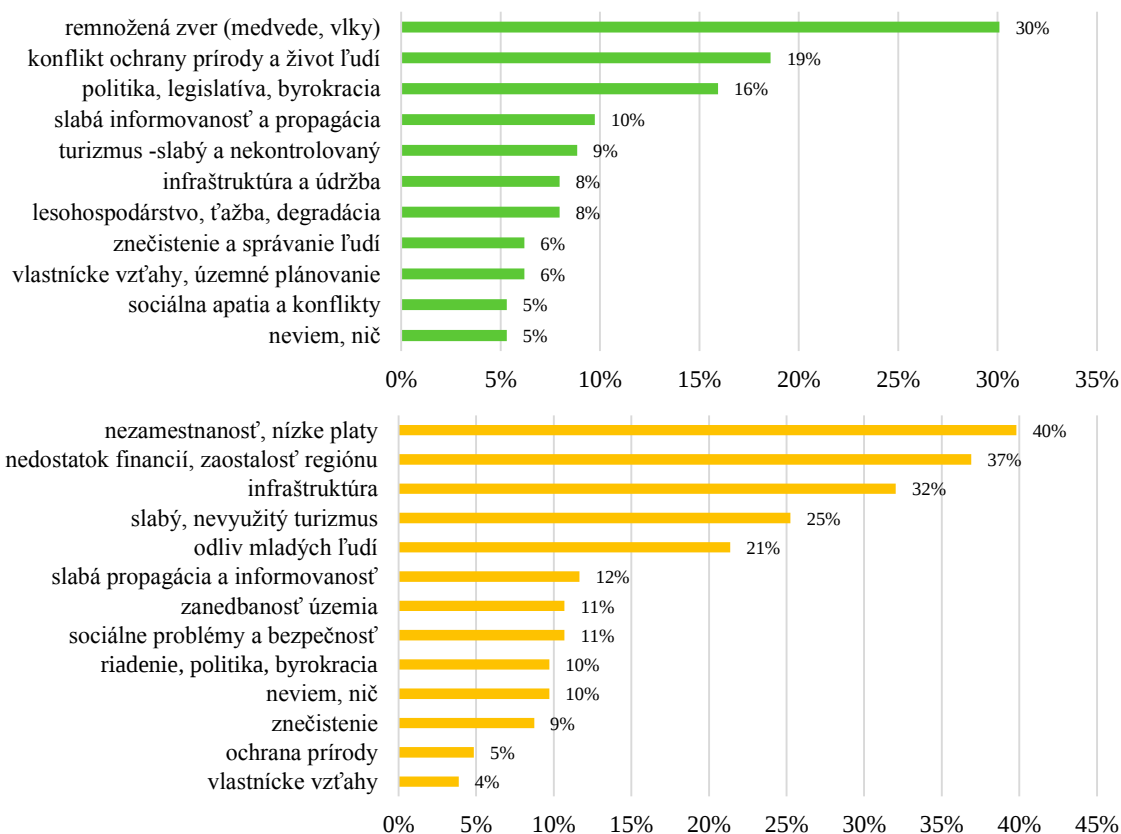
Príloha 23 Čo miestni obyvatelia vnímajú ako najväčšiu výhodu života vo vybranej biosférickej rezervácii

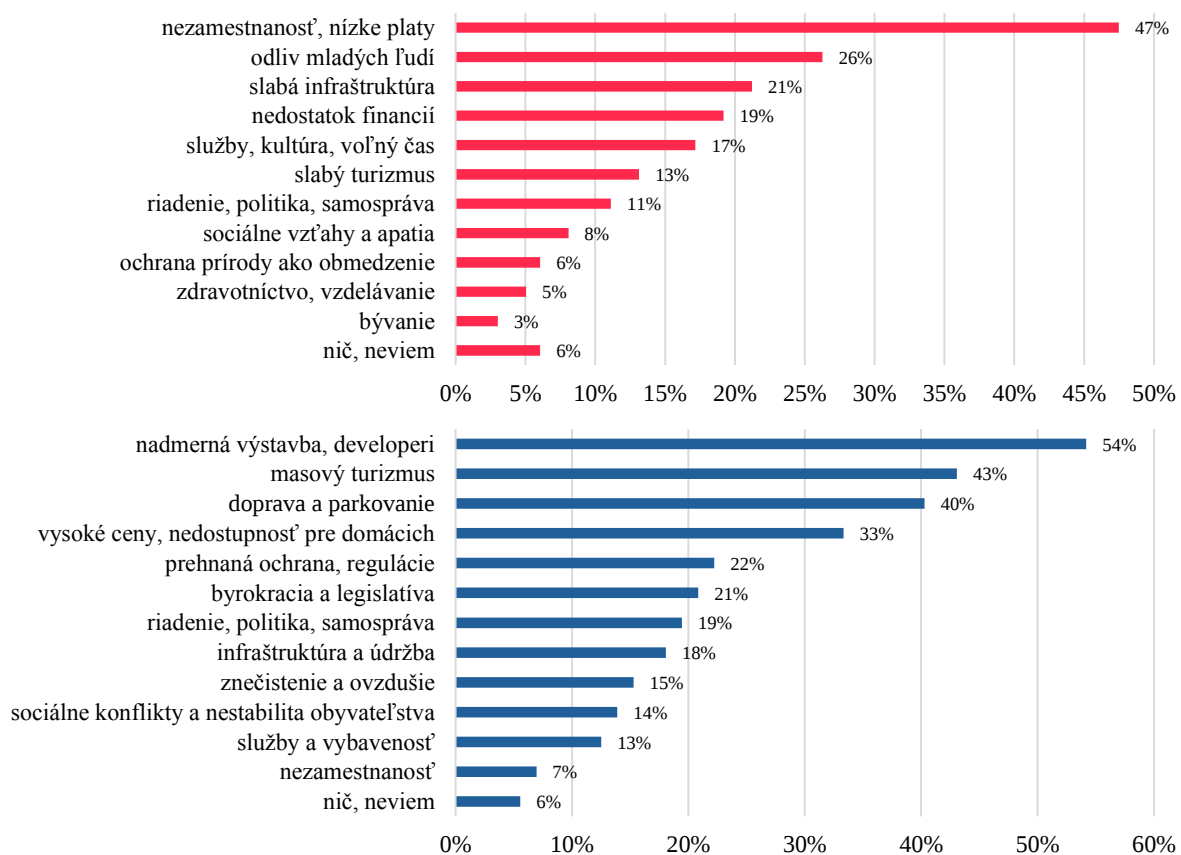




Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 24 Čo miestni obyvatelia vnímajú ako najväčší problém v rozvoji územia vybranej biosférickej rezervácii





● Biosférická rezervácia Poľana

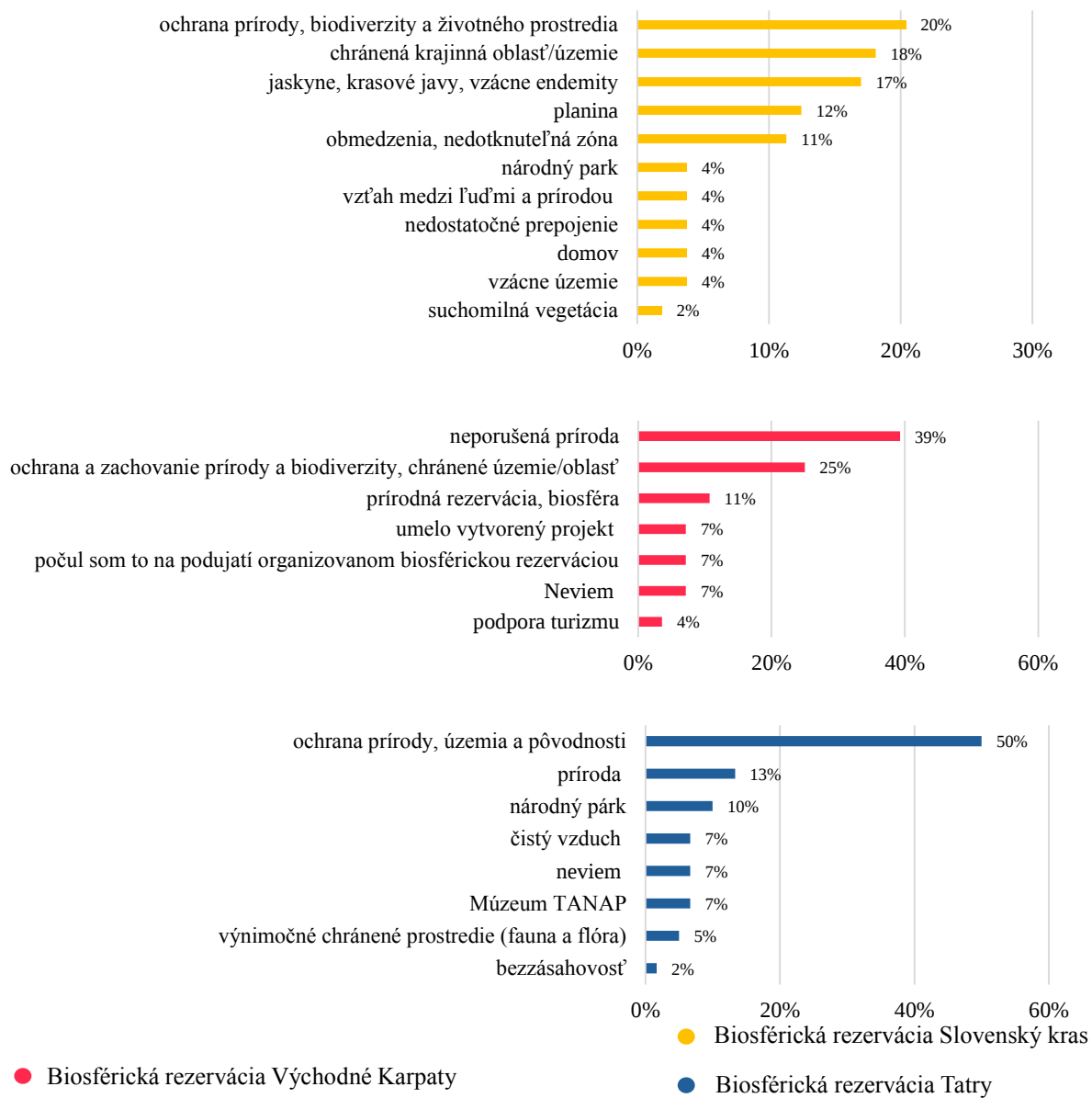
● Biosférická rezervácia Slovenský kras

● Biosférická rezervácia Východné Karpaty

● Biosférická rezervácia Tatry

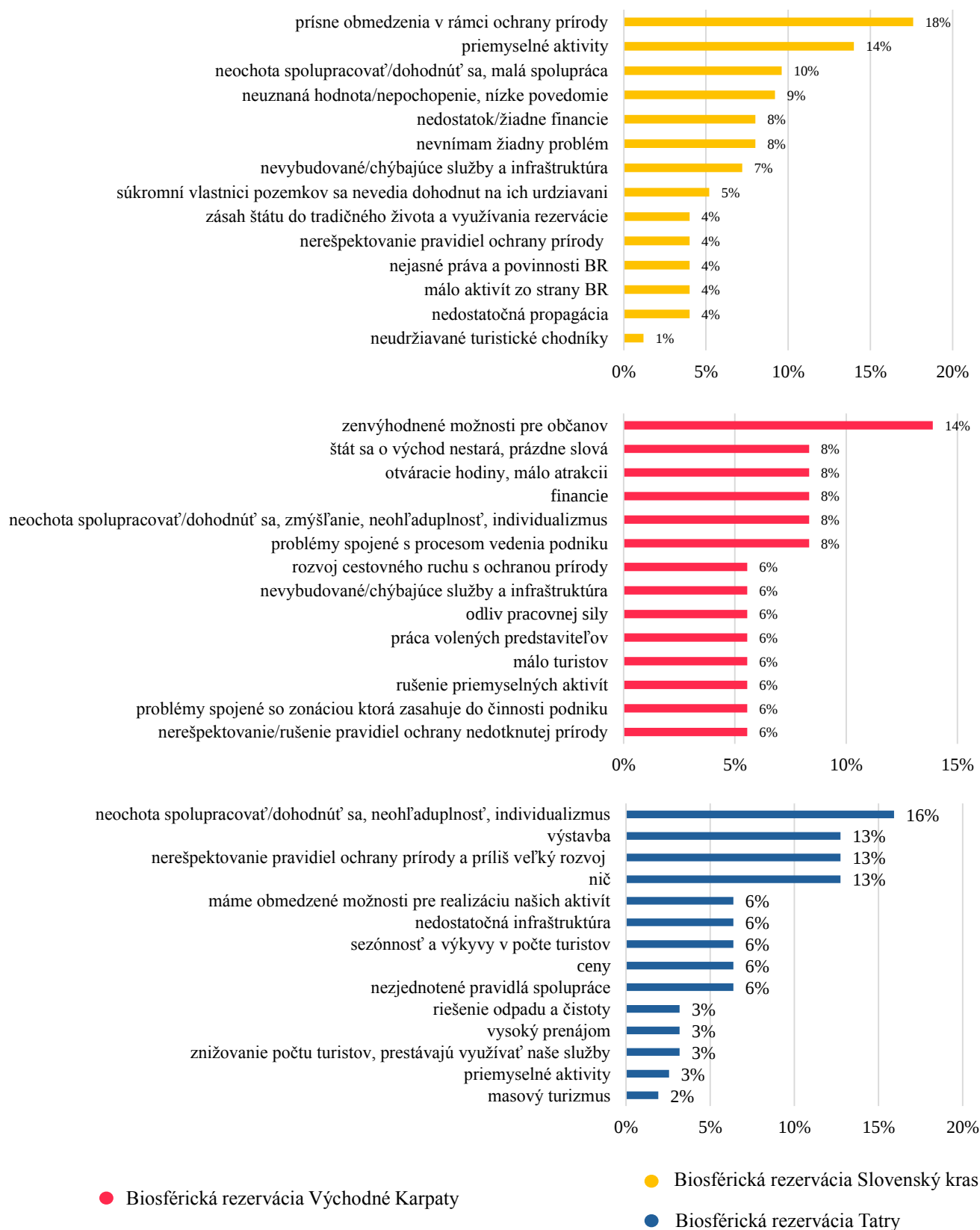
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 25 Čo respondentom (zastupujúcich stakeholderov) ako prvé napadne, keď počujú spojenie biosférická rezervácia



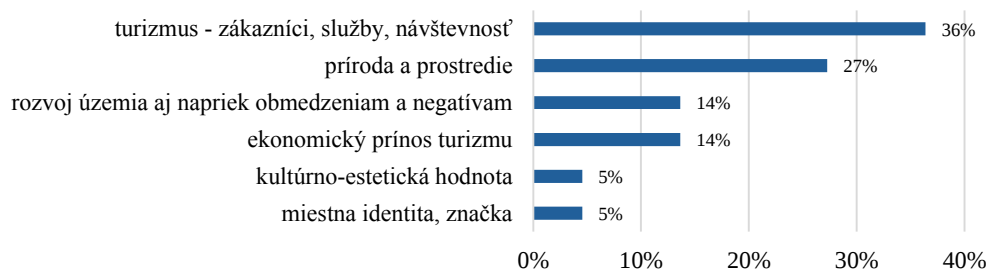
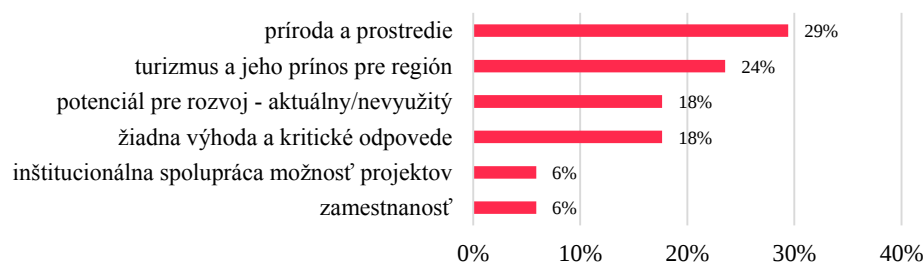
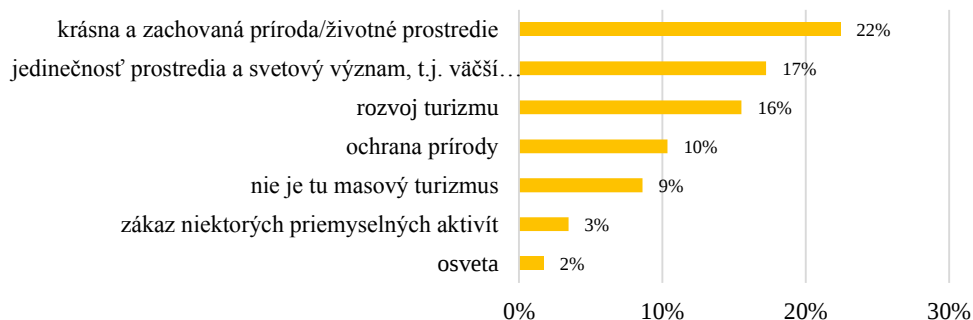
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 26 Čo respondenti (zastupujúci stakeholderov) vnímajú ako najväčší problém v rozvoji územia vybranej biosférickej rezervácie



Zdroj: vlastné spracovanie výsledkov výskumu

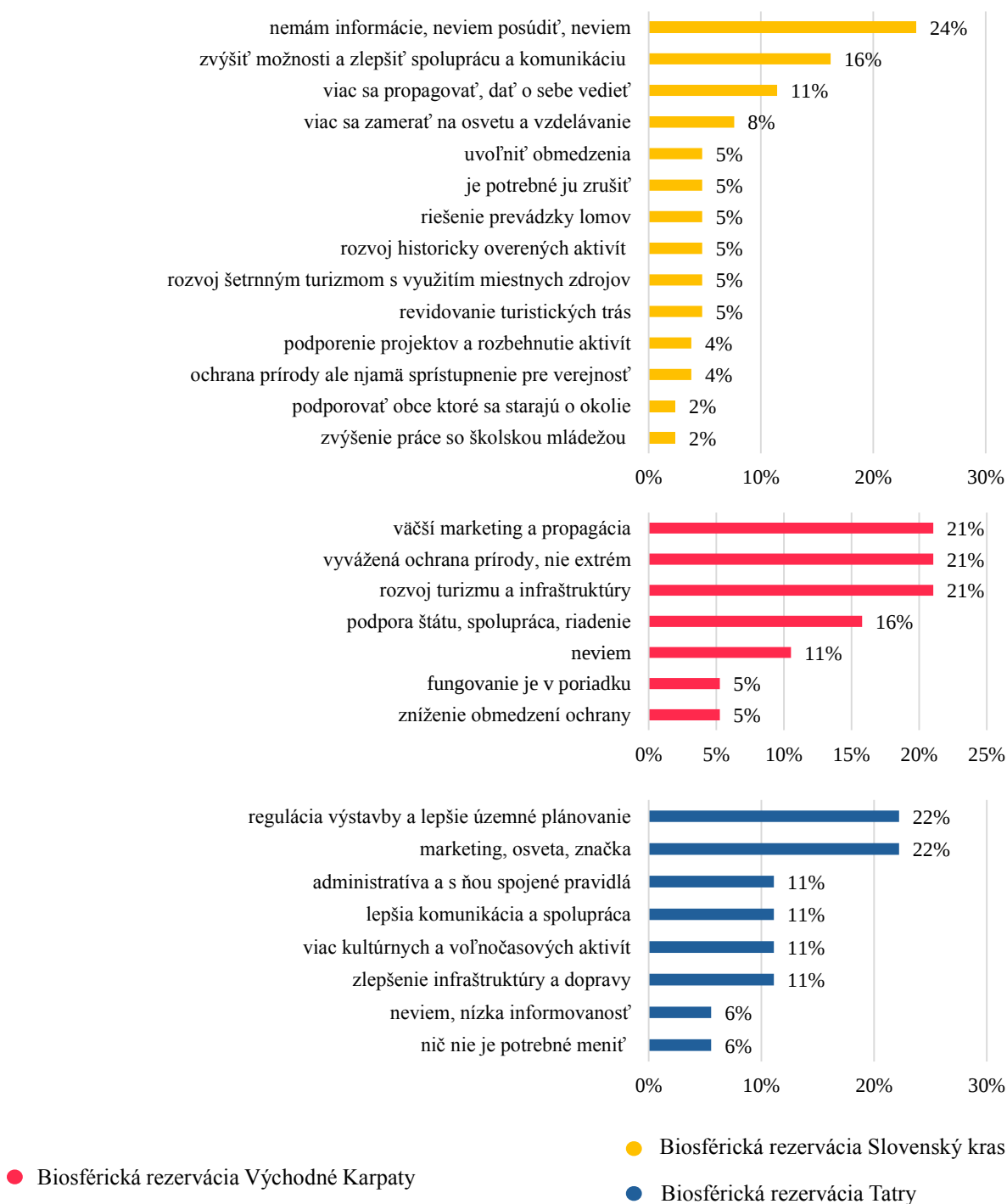
Príloha 27 Čo respondenti (zastupujúci stakeholderov) vnímajú ako najväčšiu výhodu pôsobenia vo vybranej biosférickej rezervácii



- Biosférická rezervácia Východné Karpaty
- Biosférická rezervácia Slovenský kras
- Biosférická rezervácia Tatry

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 28 Ako by mala z pohľadu respondentov (zastupujúcich stakeholderov) fungovať vybraná biosférická rezervácia v budúcnosti



Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 29 Formy participácie miestnych občanov pri rozvoji územia, ktoré respondenti (zastupujúci stakeholderov) dosiaľ využili

Biosférická rezervácia Poľana	Nevyužili sme	1x za rok	2-3x za rok	viac ako 3x za rok
Dotazník	64%	55%	0%	27%
Anketa	64%	18%	0%	27%
Verejné stretnutia a diskusie	55%	55%	18%	9%
Individuálne rozhovory s občanmi	55%	18%	9%	27%
Elektronické hlasovanie	64%	9%	0%	27%
Iné, uveďte, čo konkrétne	55%	0%	0%	0%

Biosférická rezervácia Slovenský kras	Nevyužili sme	1x za rok	2-3x za rok	viac ako 3x za rok
Dotazník	84%	16%	0%	0%
Anketa	84%	12%	0%	4%
Verejné stretnutia a diskusie	60%	28%	8%	4%
Individuálne rozhovory s občanmi	56%	16%	8%	20%
Elektronické hlasovanie	88%	8%	0%	4%
Iné, uveďte, čo konkrétne	92%	4%	4%	0%

Biosférická rezervácia Východné Karpaty	Nevyužili sme	1x za rok	2-3x za rok	viac ako 3x za rok
Dotazník	79%	21%	0%	0%
Anketa	79%	14%	7%	0%
Verejné stretnutia a diskusie	50%	21%	14%	14%
Individuálne rozhovory s občanmi	36%	0%	0%	64%
Elektronické hlasovanie	86%	7%	0%	7%
Iné, uveďte, čo konkrétne	100%	0%	0%	0%

Biosférická rezervácia Tatry	Nevyužili sme	1x za rok	2-3x za rok	viac ako 3x za rok
Dotazník	80%	13%	7%	0%
Anketa	87%	7%	7%	0%
Verejné stretnutia a diskusie	60%	13%	7%	20%
Individuálne rozhovory s občanmi	47%	7%	7%	40%
Elektronické hlasovanie	93%	0%	7%	0%
Iné, uveďte, čo konkrétne	93%	0%	0%	7%

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 30 Účinnosť foriem participácie miestnych občanov pri rozvoji územia, ktoré respondenti (zastupujúci stakeholderov) dosiaľ využili

Biosférická rezervácia Slovenský kras	najúčinnejšie	skôr účinné	neviem sa vyjadriť	skôr neúčinné	najmenej účinné
Dotazník	4%	24%	48%	8%	16%
Anketa	8%	24%	48%	8%	12%
Verejné stretnutia a diskusie	40%	24%	24%	4%	8%
Individuálne rozhovory s občanmi	28%	36%	28%	4%	4%
Elektronické hlasovanie	12%	16%	44%	16%	12%
Iné, uveďte, čo konkrétne	0%	8%	64%	4%	24%

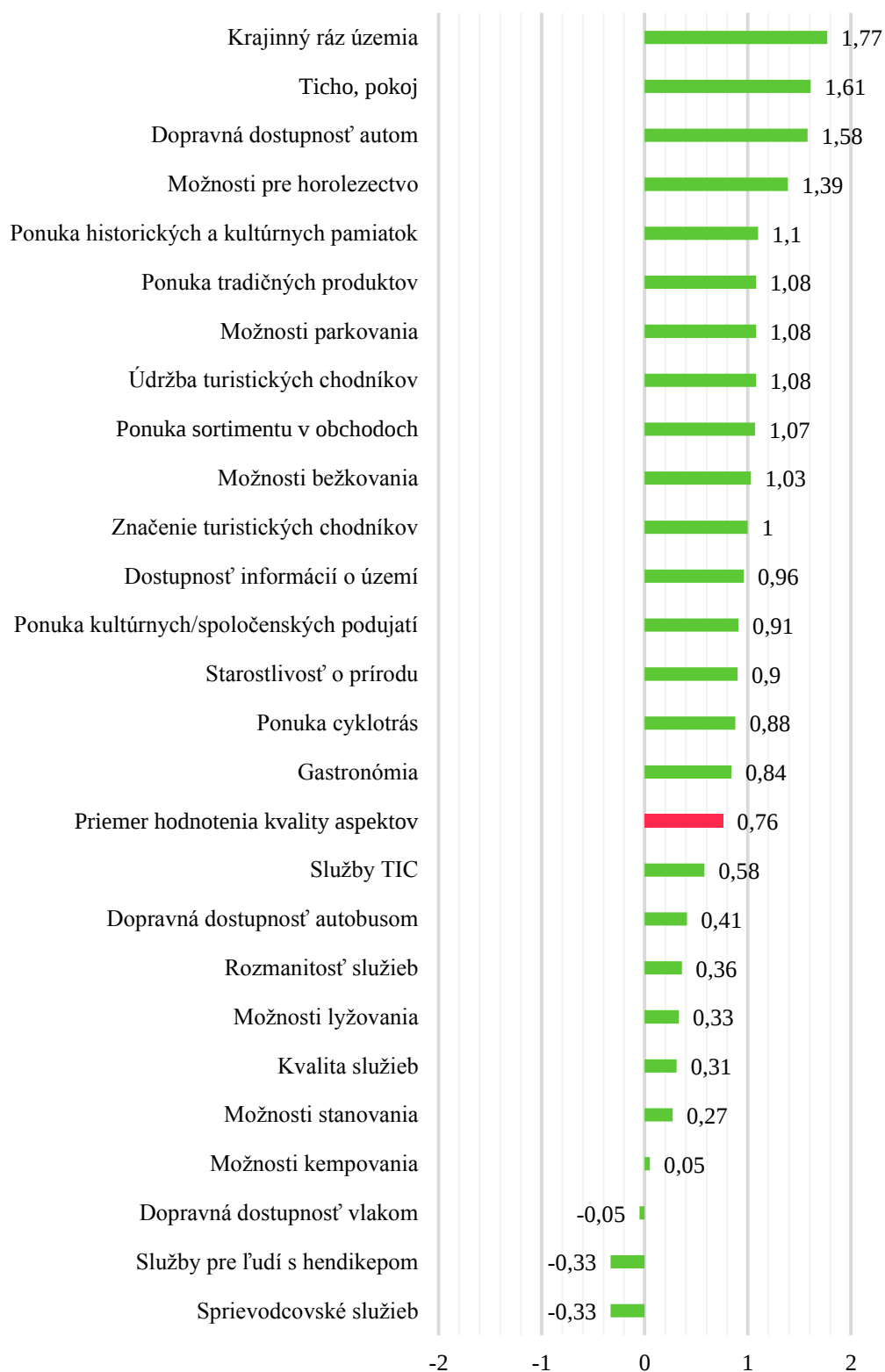
Biosférická rezervácia Východné Karpaty	najúčinnejšie	skôr účinné	neviem sa vyjadriť	skôr neúčinné	najmenej účinné
Dotazník	7%	14%	71%	7%	0%
Anketa	0%	14%	79%	7%	0%
Verejné stretnutia a diskusie	29%	29%	36%	0%	7%

Individuálne rozhovory s občanmi	57%	7%	36%	0%	0%
Elektronické hlasovanie	0%	0%	93%	7%	0%
Iné, uveďte, čo konkrétne	0%	0%	93%	7%	0%

Biosférická rezervácia Tatry	najúčinnejšie	skôr účinné	neviem sa vyjadriť	skôr neúčinné	najmenej účinné
Dotazník	13%	13%	67%	7%	0%
Anketa	13%	7%	80%	0%	0%
Verejné stretnutia a diskusie	27%	13%	53%	7%	0%
Individuálne rozhovory s občanmi	27%	13%	47%	13%	0%
Elektronické hlasovanie	10%	10%	73%	7%	0%
Iné, uveďte, čo konkrétne	0%	7%	93%	0%	0%

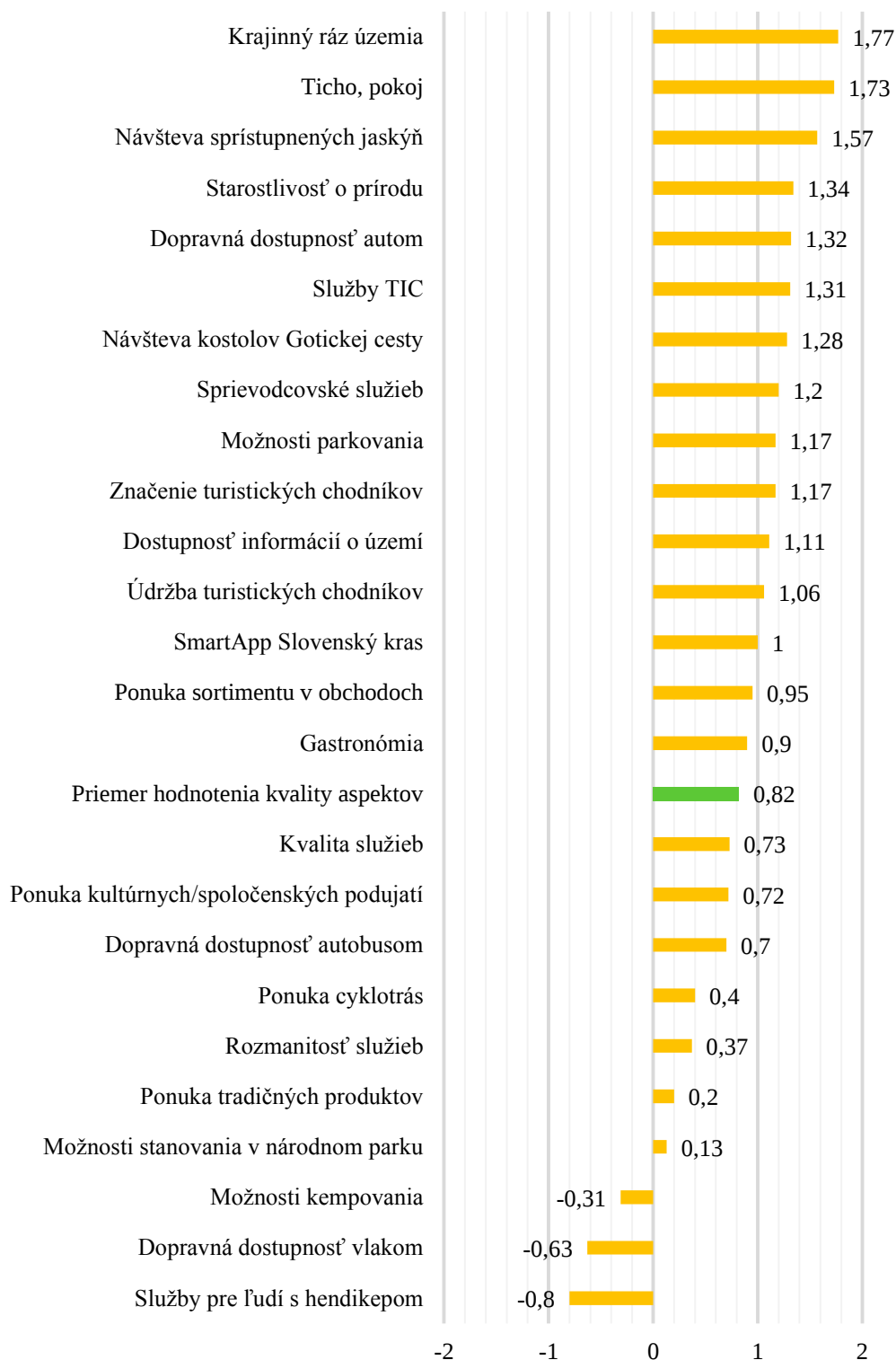
Zdroj: vlastné spracovanie výsledkov výskumu

**Príloha 31 Hodnotenie jednotlivých aspektov kvality ponuky Biosférickej rezervácie
Poľana respondentmi (zastupujúcich turistov)**



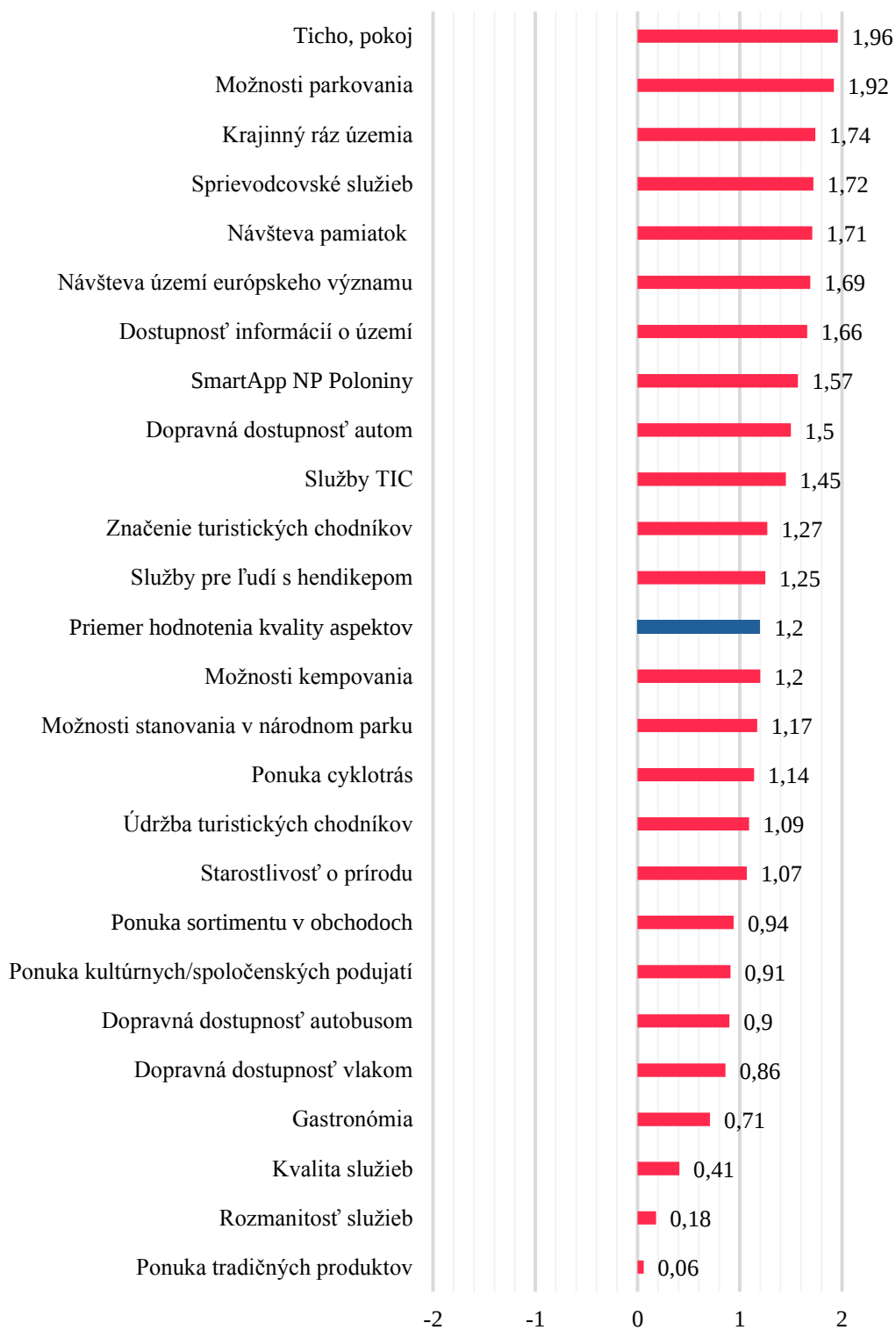
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 32 Hodnotenie jednotlivých aspektov kvality ponuky Biosférickej rezervácie Slovenský kras respondentmi (zastupujúcich turistov)



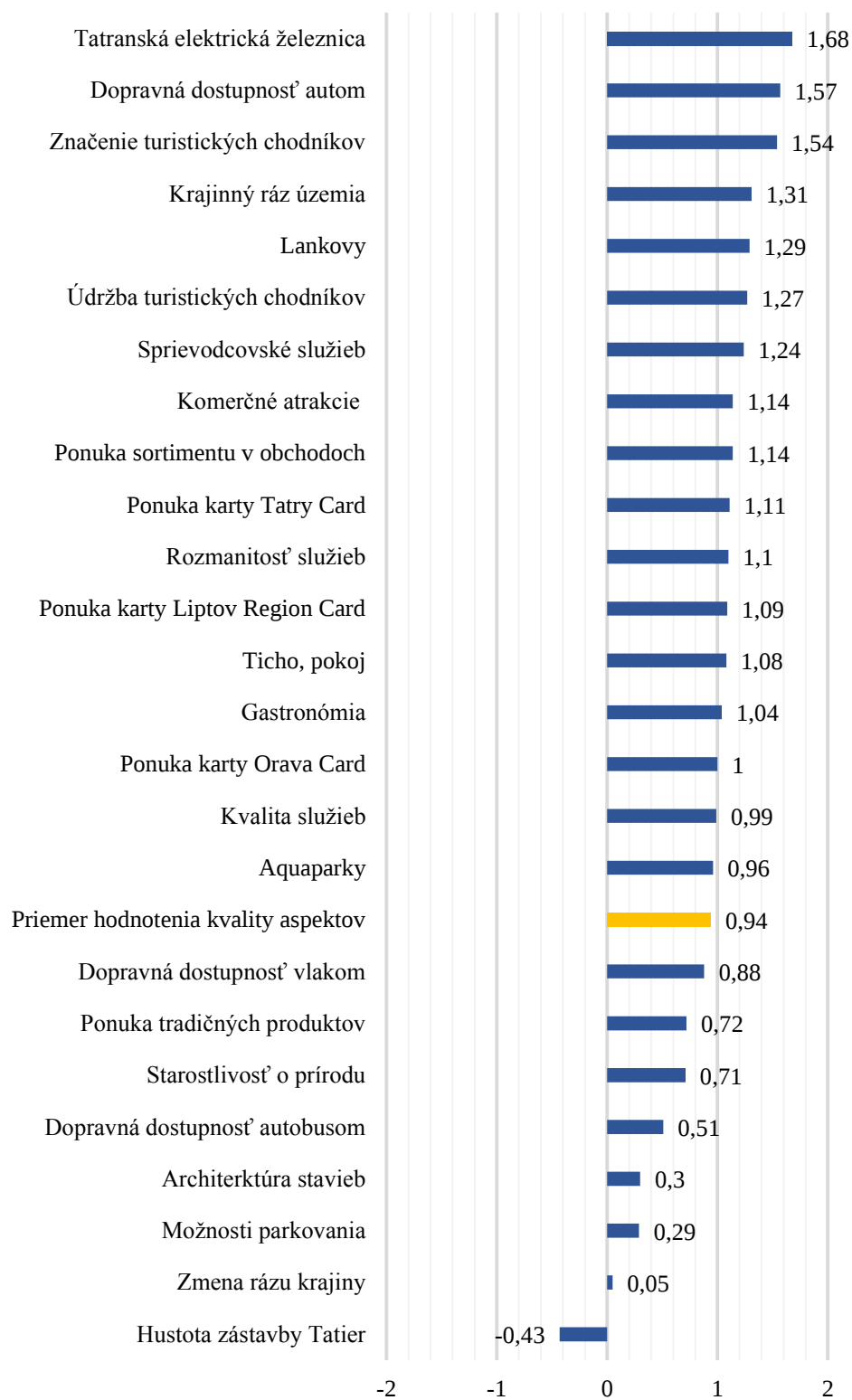
Zdroj: vlastné spracovanie výsledkov výskumu

**Príloha 33 Hodnotenie jednotlivých aspektov kvality ponuky Biosférickej rezervácie
Východné Karpaty respondentmi (zastupujúcich turistov)**



Zdroj: vlastné spracovanie výsledkov výskumu

**Príloha 34 Hodnotenie jednotlivých aspektov kvality ponuky Biosférickej rezervácie
Tatry respondentmi (zastupujúcich turistov)**



Zdroj: vlastné spracovanie výsledkov výskumu

**Príloha 35 Friedman test hodnotenia jednotlivých aspektov ponuky respondentmi
(zastupujúcich turistov) v biosférických rezerváciách na území Slovenskej republiky**

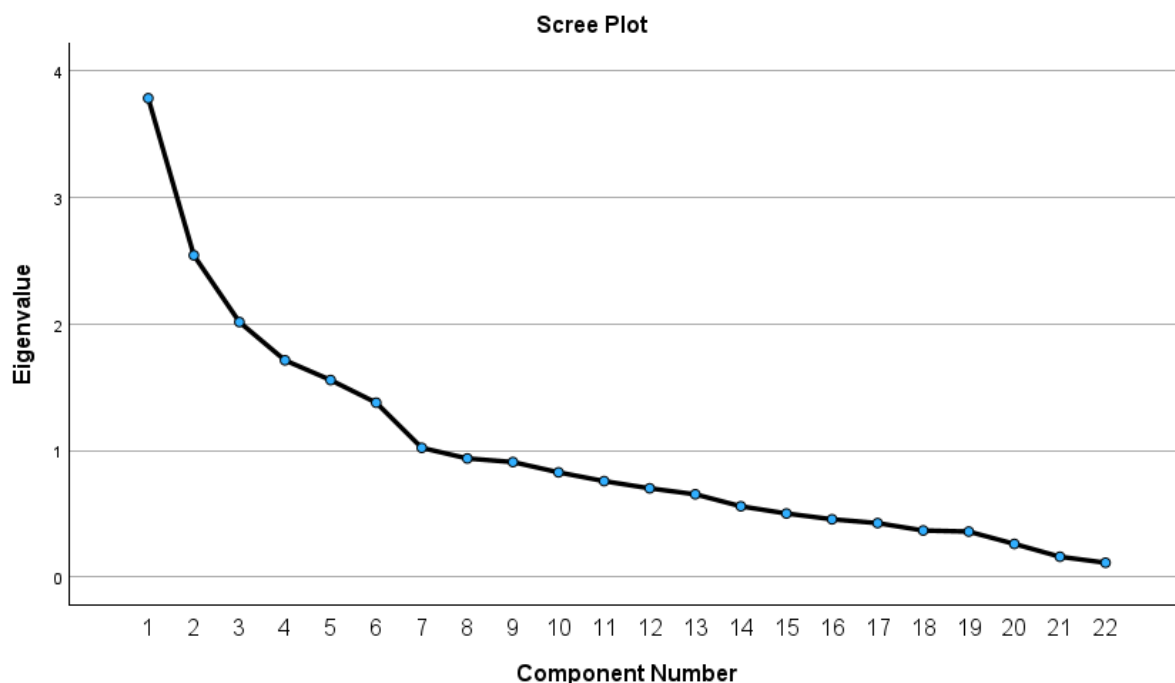
Biosférická rezervácia Poľana		Biosférická rezervácia Slovenský kras	
	Mean Rank		Mean Rank
Krajinný ráz územia Biosférickej rezervácie Poľana	20,79	Krajinný ráz územia Slovenského krasu	20,35
Ticho, pokoj	20,18	Ticho, pokoj	20,32
Dopravná dostupnosť autom	19,47	Starostlivosť o prírodu	17,32
Ponuka tradičných produktov	16,39	Dostupnosť informácií o území	16,78
Ponuka historických a kultúrnych pamiatok	16,00	Možnosti parkovania	16,52
Možnosti parkovania	15,95	Návšteva sprístupnených jaskýň	16,30
Starostlivosť o prírodu	15,77	Údržba turistických chodníkov	16,00
Značenie turistických chodníkov	15,69	Dopravná dostupnosť autom	15,65
Ponuka sortimentu v obchodoch	15,32	Značenie turistických chodníkov	15,45
Údržba turistických chodníkov	15,23	Sprievodcovské služby	14,45
Ponuka kultúrnych/spoločenských podujatí	15,15	Gastronómia	13,86
Gastronómia	14,89	Ponuka sortimentu v obchodoch	13,73
Dostupnosť informácií o území	14,86	Kvalita služieb	12,99
Možnosti pre horolezectvo	12,47	Návšteva kostolov Gotickej cesty	11,63
Rozmanitosť služieb	12,36	Dopravná dostupnosť autobusom	11,37
Ponuka cyklotrás	11,94	Služby TIC Rožňava	11,35
Kvalita služieb	11,25	Rozmanitosť služieb	10,08
Možnosti bežkovania	10,91	Ponuka kultúrnych/spoločenských podujatí	9,97
Dopravná dostupnosť autobusom	10,58	SmartApp Slovenský kras	9,89
Služby TIC	10,54	Ponuka tradičných produktov	9,62
Možnosti lyžovania	9,98	Ponuka cyklotrás	9,17
Možnosti stanovania	9,54	Možnosti stanovania v národnom parku	8,58
Dopravná dostupnosť vlakom	9,36	Možnosti kempovania	8,22
Možnosti kempovania	9,15	Služby pre ľudí s hendikepom	7,78
Služby pre ľudí s hendikepom	8,67	Dopravná dostupnosť vlakom	7,60
Sprievodcovské služby	8,62		

Biosférická rezervácia Východné Karpaty		Biosférická rezervácia Tatry	
	Mean Rank		Mean Rank
Ticho, pokoj	20,13	Dopravná dostupnosť Tatier autom	18,28
Možnosti parkovania	19,05	Značenie turistických chodníkov	17,48
Krajinný ráz územia	18,74	Krajinný ráz územia Tatier	16,90
Dostupnosť informácií o území	17,93	Údržba turistických chodníkov	16,46
Návšteva pamiatok (drevených kostolíkov, panteón, múzeá a pod.)	16,14	Tatranská elektrická železnica	16,27
Dopravná dostupnosť autom	15,73	Ticho, pokoj	15,56
Starostlivosť o prírodu	15,43	Rozmanitosť služieb	15,47
Návšteva území európskeho významu	15,24	Lanovky	15,43
Značenie turistických chodníkov	14,80	Gastronómia	15,19

Údržba turistických chodníkov	14,52	Kvalita služieb	14,98
Ponuka sortimentu v obchodoch	13,92	Ponuka sortimentu v obchodoch	13,93
Sprievodcovské služby	13,24	Ponuka tradičných produktov	13,37
Gastronómia	12,43	Starostlivosť o prírodu Tatier	13,23
Ponuka cyklotrás	11,94	Komerčné atrakcie (lanové dráhy, domy ilúzií, súkromné ZOO a pod.)	11,99
Kvalita služieb	10,81	Dopravná dostupnosť Tatier vlakom	11,55
Dopravná dostupnosť vlakom	10,64	Aquaparky	11,46
Ponuka kultúrnych/spoločenských podujatí	10,51	Architektúra stavieb Tatier	11,43
Služby TIC v Novej Sedlici	10,09	Možnosti parkovania	10,98
Ponuka tradičných produktov	9,42	Sprievodcovské služby	10,09
SmartApp NP Poloniny (Bieszczady & MRB Karpaty Wschodnie)	9,38	Dopravná dostupnosť Tatier autobusom	10,07
Dopravná dostupnosť autobusom	9,29	Ponuka karty Tatry Card	9,56
Rozmanitosť služieb	9,14	Zmena rázu krajiny	9,44
Možnosti stanovania v národnom parku	8,96	Ponuka karty Liptov Region Card	9,22
Možnosti kempovania	8,80	Ponuka karty Orava Card	9,10
Služby pre ľudí s hendikepom	8,70	Hustota zástavby Tatier	7,56

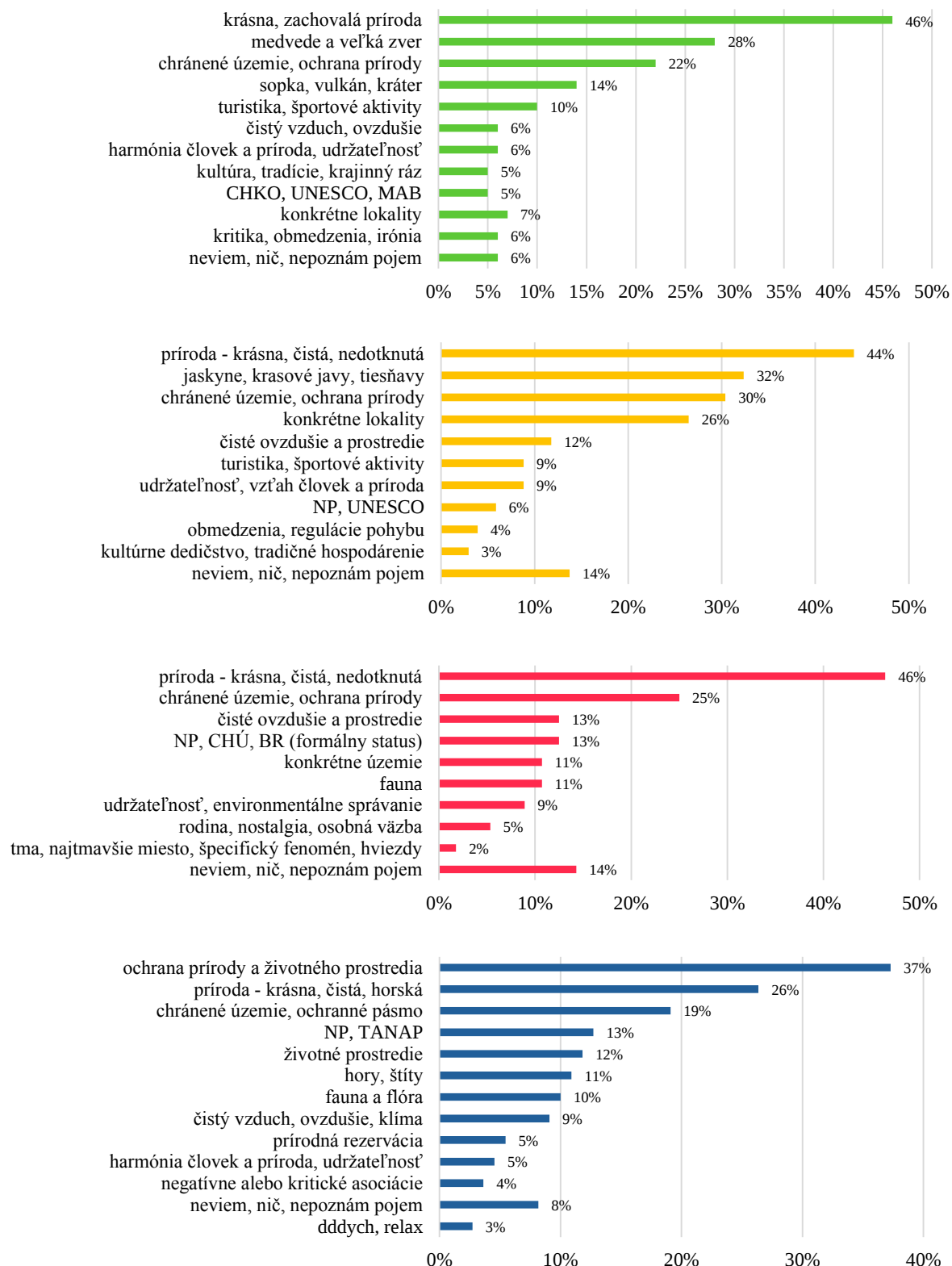
Zdroj: vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 36 Scree plot faktorovej analýzy hodnotenia jednotlivých aspektov ponuky respondentami (zastupujúcich turistov) v biosférických rezerváciách na území Slovenskej republiky



Zdroj: výstup SPSS

Príloha 37 Čo ako prvé napadne respondentom (zastupujúcich turistov) keď počujú spojenie biosférická rezervácia s doplnením názvu vybranej biosférickej rezervácie



● Biosférická rezervácia Poľana

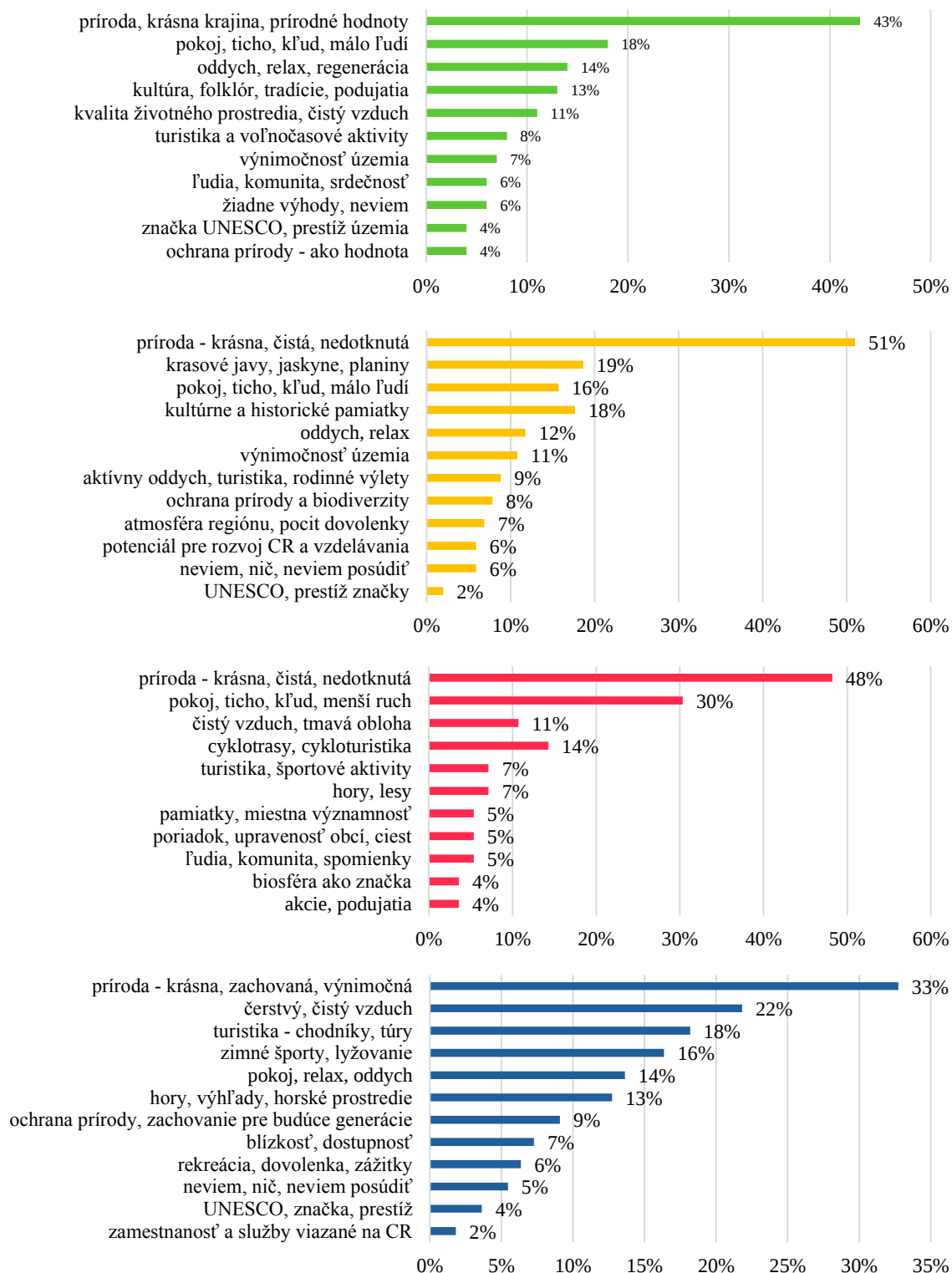
● Biosférická rezervácia Slovenský kras

● Biosférická rezervácia Východné Karpaty

● Biosférická rezervácia Tatry

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 38 Čo respondenti (zastupujúci turistov) vnímajú ako najväčšiu výhodu toho, že sa nachádzajú vo vybranej biosférickej rezervácii



● Biosférická rezervácia Poľana

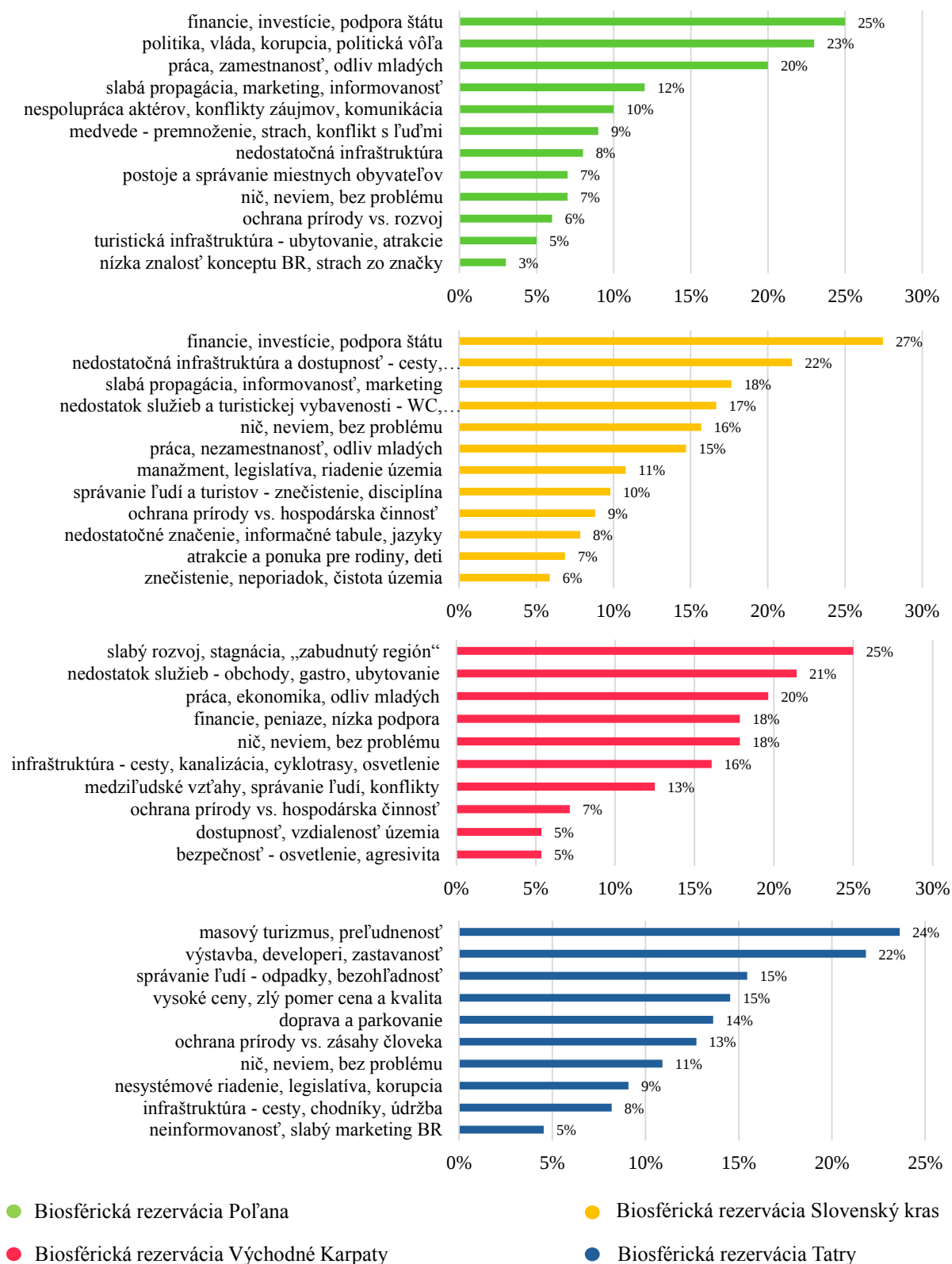
● Biosférická rezervácia Slovenský kras

● Biosférická rezervácia Východné Karpaty

● Biosférická rezervácia Tatry

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 39 Čo respondenti (zastupujúci turistov) vnímajú ako najväčší problém v rozvoji územia vybranej biosférickej rezervácie



Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 40 Hodnotenie prispievania k plneniu cieľov udržateľného rozvoja Agendy 2030 s priemerným poradím podľa Friedman testu biosférickými rezerváciami na európskom kontinente

Cieľ udržateľného rozvoja Agendy 2030	Friedman test priemerné poradie
Chrániť, obnovovať a podporovať udržateľné využívanie suchozemských ekosystémov, udržateľne hospodáriť v lesoch, bojovať proti dezertifikácii, zastaviť a zvrátiť degradáciu pôdy a zastaviť stratu biodiverzity	5,48
Zabezpečiť udržateľné modely spotreby a výroby	6,44
Prijať naliehavé opatrenia na boj proti zmene klímy a jej vplyvom	6,52
Zabezpečiť inkluzívne a spravodlivé kvalitné vzdelávanie a podporovať možnosti celoživotného vzdelávania pre všetkých	7,92
Vytvoriť inkluzívne, bezpečné, odolné a udržateľné mestá a ľudské osídlenia	7,98
Posilniť prostriedky implementácie a oživiť globálne partnerstvo pre udržateľný rozvoj	8,73
Zabezpečiť kvalitný zdravý život a podporovať blahobyt pre všetkých v každom veku	8,94
Podporovať trvalý, inkluzívny a udržateľný hospodársky rast, plnú a produktívnu zamestnanosť a dôstojnú prácu pre všetkých	9,10
Skončiť s hladom, dosiahnuť potravinovú bezpečnosť, lepšiu výživu a podporovať udržateľné poľnohospodárstvo	9,23
Zabezpečiť dostupnosť a udržateľné hospodárenie s vodou a sanitácie pre všetkých	9,25
Budovať odolnú infraštruktúru, podporovať inkluzívnu a udržateľnú industrializáciu a podporovať inovácie	9,35
Zabezpečiť prístup k cenovo dostupnej, spoľahlivej, udržateľnej a modernej energii pre všetkých	9,79
Podporovať mierové a inkluzívne spoločnosti pre udržateľný rozvoj, zabezpečiť prístup k spravodlivosti pre všetkých a budovať účinné, zodpovedné a inkluzívne inštitúcie na všetkých úrovniach	10,23
Dosiahnuť rodovú rovnosť a posilniť postavenie všetkých žien a dievčat	10,46
Zachovať a udržateľne využívať oceány, moria a morské zdroje v záujme udržateľného rozvoja	10,69
Odstrániť chudobu vo všetkých jej formách	11,35
Znižovať nerovnosti v rámci krajín a medzi nimi	11,54

Zdroj: vlastné spracovanie výsledkov výskumu podľa výstupu SPSS

Príloha 41 Zapájanie stakeholderov biosférickými rezerváciami na európskom kontinente vyjadrené počtom fáz strategického plánovania do koľkých sú zapájaní

stakeholderi	počet fáz strategického plánovania 0 – v žiadnej	1	2	3	4	5	6	7	8 – vo všetkých
občania	17%	11%	11%	22%	28%	0%	0%	0%	11%
podnikatelia	33%	6%	17%	11%	11%	11%	0%	0%	11%
cirkev	83%	0%	6%	0%	6%	6%	0%	0%	0%
miestne samosprávy	17%	6%	11%	0%	17%	0%	17%	6%	28%
MVO v oblasti vzdelávania	39%	6%	17%	6%	6%	0%	22%	6%	0%
MVO v oblasti životného prostredia	24%	0%	0%	18%	6%	6%	18%	0%	29%
MVO v sociálnej oblasti	44%	11%	0%	17%	11%	0%	17%	0%	0%
MVO v oblasti kultúry	44%	11%	0%	11%	11%	0%	22%	0%	0%
vládne úrady a orgány	22%	0%	6%	6%	6%	11%	22%	0%	28%
médiá	33%	39%	17%	6%	6%	0%	0%	0%	0%
vedecké inštitúcie, univerzity	6%	6%	11%	11%	6%	11%	22%	6%	22%
DMO	28%	6%	17%	6%	28%	6%	0%	6%	6%

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 42 Využívanie nástrojov participatívneho spravovania biosférickými rezerváciami na európskom kontinente vyjadrené počtom fáz strategického plánovania v koľkých sú využívané

nástroje participatívneho spravovania	počet fáz strategického plánovania 0 – v žiadnej	1	2	3	4	5	6	7	8 – vo všetkých
verejné stretnutie a diskusia/počúvanie	11%	17%	17%	28%	6%	17%	0%	6%	0%
dotazníkový prieskum, ankety medzi stakeholdermi	22%	33%	17%	11%	0%	11%	0%	0%	6%
účasť stakeholderov v pracovných skupinách	11%	11%	17%	17%	17%	11%	0%	6%	11%
diskusné fórum so zástupcami skupín stakeholderov	11%	11%	17%	17%	17%	6%	6%	6%	11%
kontaktovanie stakeholderov prostredníctvom pošty, e-mailu, bulletinov, časopisov atď.	22%	28%	6%	11%	17%	6%	0%	0%	11%
portál otvorených dát	67%	17%	11%	0%	6%	0%	0%	0%	0%

vizualizácie/aplikácie otvorených dát	67%	11%	17%	6%	0%	0%	0%	0%	0%
databázy na zdieľanie informácií v rámci miestneho úradu	71%	6%	12%	12%	0%	0%	0%	0%	0%
webová stránka biosférickej rezervácie	28%	22%	17%	0%	17%	0%	11%	0%	6%
online komunikácia prostredníctvom sociálnych sietí	22%	33%	11%	11%	11%	0%	6%	0%	6%
participatívny rozpočet (online a offline)	82%	6%	12%	0%	0%	0%	0%	0%	0%
hackathony a súťaže pre stakeholderov	94%	0%	6%	0%	0%	0%	0%	0%	0%
vzdelávacie aktivity zamerané na stakeholderov a zamestnancov BR	28%	17%	6%	11%	22%	6%	6%	0%	6%
organizovanie podujatí	17%	28%	11%	6%	28%	11%	0%	0%	0%

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 43 Využívanie nástrojov participatívneho spravovania biosférickými rezerváciami na európskom kontinente vyjadrené počtom stakeholderov, ktorí sú zapájaní

nástroje participatívneho spravovania	počet stakeholderov	0 – so žiadaným	1	2	3	4	5	6	7	8	9	10	11	12 – so všetkými
verejné stretnutie a diskusia/počúvanie	11%	6%	17%	0%	6%	6%	11%	6%	11%	0%	11%	11%	6%	
dotazníkový prieskum, ankety medzi stakeholdermi	28%	22%	11%	0%	17%	6%	6%	0%	0%	6%	0%	6%	0%	
účasť stakeholderov v pracovných skupinách	6%	11%	0%	22%	6%	6%	11%	11%	6%	6%	11%	0%	6%	
diskusné fórum so zástupcami skupín stakeholderov	22%	0%	11%	6%	6%	11%	11%	6%	0%	17%	6%	0%	6%	
kontaktovanie stakeholderov prostredníctvom pošty, e-mailu, bulletinov, časopisov atď.	22%	22%	0%	17%	0%	0%	11%	0%	0%	6%	6%	17%	0%	
portál otvorených dát	72%	6%	6%	0%	0%	0%	0%	6%	0%	0%	0%	0%	11%	
vizualizácie/aplikácie otvorených dát	83%	6%	6%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	
databázy na zdieľanie informácií v rámci miestneho úradu	67%	17%	0%	0%	0%	6%	0%	0%	6%	0%	6%	0%	0%	
webová stránka biosférickej rezervácie	33%	11%	11%	0%	0%	0%	6%	0%	0%	6%	6%	11%	17%	
online komunikácia prostredníctvom sociálnych sietí	22%	22%	11%	6%	6%	6%	0%	0%	0%	0%	6%	6%	17%	

participatívny rozpočet (online a offline)	83%	0%	0%	0%	0%	6%	6%	0%	0%	0%	0%	6%	0%
hackathony a súťaže pre stakeholderov	94%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	0%
vzdelávacie aktivity zamerané na stakeholderov a zamestnancov BR	28%	11%	17%	6%	0%	6%	6%	6%	6%	6%	0%	6%	6%
organizovanie podujatí	17%	0%	11%	6%	22%	6%	0%	11%	6%	0%	6%	6%	11%

Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 44 Zoradenie biosférických rezervácií na území európskeho kontinentu podľa hodnotenia jednotlivých skupín v analýze ich plánov

		plánovanie	hodnotenie kvality života	hodnotenie potenciálu územia	fungovanie a spolupráca	
biosférická rezervácia	krajina	priemer	priemer	priemer	priemer	celkový priemer
Unteres Murtal / Lower Mura Valley	Austria	1,00	1,00	1,00	1,00	1,00
Berchtesgadener Land	Germany	1,00	1,00	1,00	1,00	1,00
Bliesgau	Germany	1,00	1,00	1,00	1,00	1,00
Rhön	Germany	1,00	1,00	1,00	1,00	1,00
Sierra Nevada	Spain	1,00	1,00	1,00	1,17	1,04
Urdaibai	Spain	1,00	1,00	1,00	1,17	1,04
Schaalsee	Germany	1,00	1,25	1,00	1,17	1,10
Xurés	Portugal	1,00	1,25	1,00	1,17	1,10
Swabian Alb	Germany	1,50	1,25	1,00	1,00	1,19
Black Forest	Germany	1,00	1,75	1,00	1,00	1,19
Julian Alps	Slovenia	1,00	1,75	1,00	1,00	1,19
Gran Canaria	Spain	1,00	1,75	1,00	1,00	1,19
Tuscan Islands	Italy	1,00	1,75	1,00	1,17	1,23
Isla de El Hierro	Spain	1,00	1,75	1,00	1,17	1,23
La Gomera	Spain	1,00	1,75	1,00	1,17	1,23
La Palma	Spain	1,00	1,75	1,00	1,17	1,23
La Siberia	Spain	1,00	1,75	1,00	1,17	1,23
Lanzarote	Spain	1,00	1,75	1,00	1,17	1,23
Macizo de Anaga	Spain	1,00	1,75	1,00	1,17	1,23
Mariñas Coruñesas e Terras do Mandeo	Spain	1,00	1,75	1,00	1,17	1,23
Menorca	Spain	1,00	1,75	1,00	1,17	1,23
Terres de l'Ebre, Catalonia	Spain	1,00	1,75	1,00	1,17	1,23
Fuerteventura	Spain	1,50	1,50	1,00	1,00	1,25
Central Balkan	Bulgaria	2,00	1,00	1,00	1,17	1,29

Ordino	Andorra	1,50	1,50	1,00	1,17	1,29
Galloway and Southern Ayrshire	UK of GB and Northern Ireland	1,00	2,00	1,00	1,17	1,29
Mont Ventoux	France	1,50	1,25	1,00	1,50	1,31
Valle Camonica - Alto Sebino	Italy	1,00	2,25	1,00	1,00	1,31
Babia	Spain	1,00	2,25	1,00	1,17	1,35
Maasheggen	Netherlands	1,50	1,50	1,50	1,00	1,38
Ledro Alps and Judicaria	Italy	1,00	2,50	1,00	1,00	1,38
Po Grande	Italy	1,00	2,50	1,00	1,00	1,38
Waddensea of Hamburg	Germany	3,00	1,00	0,50	1,00	1,38
Kristianstad Vattenrike	Sweden	1,00	2,00	1,50	1,17	1,42
Srébarna	Bulgaria	1,50	1,50	1,00	1,67	1,42
Danube Delta	Romania	1,00	1,50	1,50	1,67	1,42
Monviso	Italy	1,50	2,25	1,00	1,00	1,44
Porto Santo	Portugal	1,50	1,75	1,00	1,50	1,44
Thuringian Forest	Germany	1,00	2,25	1,00	1,50	1,44
North Karelian	Finland	1,00	2,00	1,50	1,33	1,46
Wienerwald	Austria	1,50	2,00	1,00	1,33	1,46
Grosses Walsertal	Austria	1,50	1,50	2,00	1,00	1,50
Salzburger Lungau & Kärntner Nockberge	Austria	1,00	2,00	2,00	1,00	1,50
Appennino Tosco-Emiliano	Italy	1,00	2,00	1,50	1,50	1,50
Nordhordland	Norway	1,00	2,75	1,00	1,33	1,52
The Karst	Slovenia	1,50	2,00	1,50	1,17	1,54
Tepilora, Rio Posada and Montalbo	Italy	1,00	2,00	1,50	1,67	1,54
Meseta Iberica	Spain	1,00	2,00	1,50	1,67	1,54
Brighton and Lewes Downs	UK of GB and Northern Ireland	1,00	2,25	2,00	1,00	1,56
Entlebuch	Switzerland	1,50	2,75	1,00	1,00	1,56
Flores Island	Portugal	1,50	2,00	1,00	1,83	1,58
Área de Allariz	Spain	1,00	1,00	3,00	1,50	1,63
Alto de Bernesga	Spain	1,00	3,00	1,00	1,50	1,63
Martinique	France	1,00	2,25	2,00	1,33	1,65
South-East Rügen	Germany	2,00	1,50	2,00	1,17	1,67
Oberlausitzer Heide- und Teichlandschaft	Germany	2,00	2,00	1,50	1,17	1,67
Lower Morava	Czechia	1,00	2,50	2,00	1,17	1,67
Julian Alps	Italy	1,00	2,50	2,00	1,17	1,67
Po Delta	Italy	2,00	2,75	1,00	1,00	1,69
Collina Po	Italy	1,50	2,00	2,00	1,33	1,71
Meseta Iberica	Portugal	2,00	2,00	1,00	1,83	1,71
Graciosa Island	Portugal	1,50	2,00	1,00	2,33	1,71
Monfrague	Spain	1,50	1,25	2,00	2,17	1,73
Iles et Mer d'Iroise	France	1,50	3,00	1,00	1,50	1,75
Mont-Viso	France	1,50	2,75	1,00	1,83	1,77
Ordesa-Vinamala	Spain	1,00	2,50	2,50	1,17	1,79
Río Eo, Oscos y Terras de Buron	Spain	1,50	2,50	1,50	1,67	1,79
Biosfera Engiadina Val Müstair	Switzerland	1,50	2,75	2,00	1,00	1,81

Vosges du Nord	France	2,50	3,00	1,00	1,00	1,88
Spreewald	Germany	2,00	2,00	2,50	1,00	1,88
Schorfheide-Chorin	Germany	1,50	2,50	2,50	1,00	1,88
Cuencas Altas de los Rios Manzanares, Lozoya y Guadarrama	Spain	1,00	2,00	2,00	2,50	1,88
Las Sierras de Béjar y Francia	Spain	1,50	2,25	1,50	2,33	1,90
Gorges du Gardon	France	1,50	2,75	1,00	2,33	1,90
Ribeira Sacra E Serras Do Oribio E Courel	Spain	2,00	2,50	1,50	1,67	1,92
Pfälzerwald / Vosges du Nord	Germany	2,00	2,75	2,00	1,00	1,94
Flusslandschaft Elbe	Germany	2,00	1,75	2,50	1,50	1,94
Sierra de las Nieves y su Entorno	Spain	1,50	1,75	2,00	2,50	1,94
Montseny	Spain	1,50	2,00	2,00	2,33	1,96
Berlengas	Portugal	2,00	1,25	2,50	2,17	1,98
Wadden Sea and Hallig Islands of Schleswig-Holstein	Germany	2,50	2,00	2,50	1,00	2,00
Monte Grappa	Italy	1,50	2,75	2,00	1,83	2,02
Ohrid-Prespa	North Macedonia	1,50	3,00	2,00	1,67	2,04
Moen	Denmark	1,50	2,25	3,00	1,50	2,06
Camargue (delta du Rhône)	France	1,00	2,75	3,00	1,50	2,06
Gerês	Spain	1,50	2,25	2,00	2,50	2,06
Corvo Island	Portugal	1,50	2,00	3,00	1,83	2,08
Cévennes	France	2,50	3,00	1,00	1,83	2,08
Fajas de Sao Jorge	Portugal	1,50	2,00	2,50	2,33	2,08
Mura-Drava-Danube	Croatia	2,00	2,50	2,00	1,83	2,08
Las Dehesas de Sierra Morena	Spain	1,50	2,25	2,00	2,67	2,10
Minett	Luxembourg	3,50	3,00	1,00	1,00	2,13
Ticino, Val Grande Verbano	Italy	2,50	2,75	1,50	1,83	2,15
Waddensea of Lower Saxony	Germany	2,50	2,50	2,50	1,17	2,17
North Devon	UK of GB and Northern Ireland	1,00	3,00	3,00	1,67	2,17
Kiskunság	Hungary	1,50	3,75	2,50	1,00	2,19
West Estonian Archipelago	Estonia	2,00	3,25	1,50	2,00	2,19
Archipel de la Guadeloupe	France	3,00	3,50	1,00	1,33	2,21
Bassin de la Dordogne	France	2,00	3,50	2,00	1,33	2,21
Intercontinental BR of the Mediterranean	Spain	1,00	3,00	2,00	2,83	2,21
Dublin Bay	Ireland	1,00	3,25	3,50	1,17	2,23
Velebit Mountains	Croatia	2,50	3,25	1,50	1,67	2,23
Cilento and Vallo di Diano	Italy	2,00	3,25	2,00	1,67	2,23
Marais Audomarois	France	1,50	3,50	2,50	1,50	2,25
Biosffer Dyfi	UK of GB and Northern Ireland	1,50	3,25	3,50	1,00	2,31
Commune de Fakarava	France	2,00	3,25	2,00	2,00	2,31
Luberon-Lure	France	3,00	3,25	2,00	1,17	2,35
Monte Peglia	Italy	2,00	3,25	2,50	1,67	2,35
Doñana	Spain	2,00	2,75	2,00	2,67	2,35
Fontainebleau et du Gatinais	France	1,50	3,75	3,00	1,17	2,35
Ohrid-Prespa	Albania	2,50	2,75	3,00	1,33	2,40

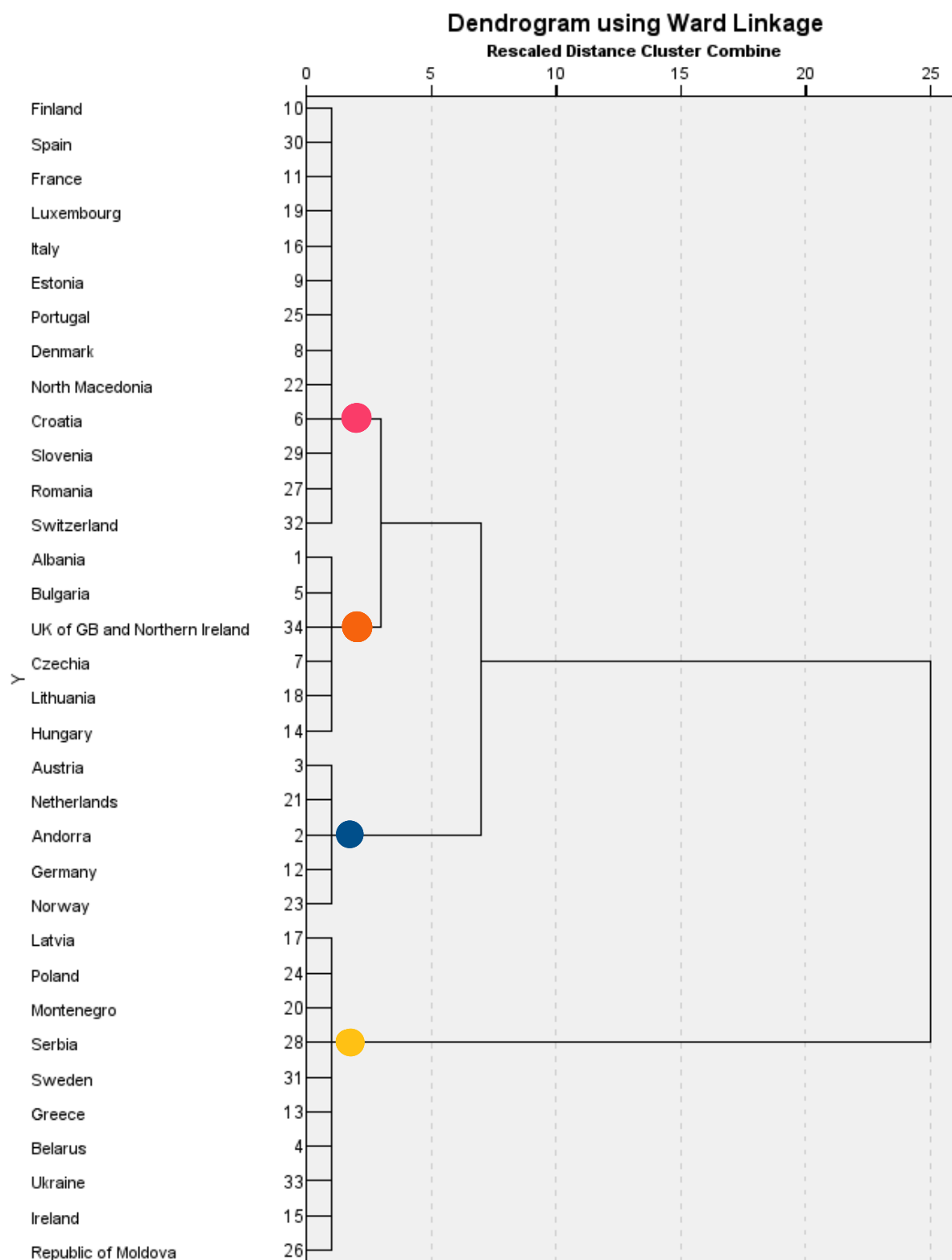
Moselle Sud	France	3,00	2,75	2,50	1,33	2,40
Rodnei Mountains	Romania	1,50	2,75	2,50	2,83	2,40
Golija-Studenica	Serbia	2,00	3,00	2,00	2,67	2,42
Las Sierras de Cazorla y Segura	Spain	2,00	2,25	2,50	3,00	2,44
Muniellos	Spain	2,00	2,75	2,00	3,00	2,44
Cabo de Gata-Nijar	Spain	1,50	2,00	4,00	2,33	2,46
Drömling	Germany	2,50	3,25	2,00	2,17	2,48
Las Ubiñas-La Mesa	Spain	2,00	2,50	2,50	3,00	2,50
Lower Prut	Republic of Moldova	2,00	3,25	2,00	2,83	2,52
Desnianskyi	Ukraine	3,00	3,00	2,00	2,17	2,54
Roztochya	Ukraine	3,00	3,00	2,00	2,17	2,54
Bardenas Reales	Spain	1,50	3,50	3,00	2,17	2,54
Tejo/Tajo Internacional	Spain	1,50	2,75	3,00	3,00	2,56
Bílé Karpathy	Czechia	3,50	2,50	2,50	1,83	2,58
Shatskyi	Ukraine	3,00	3,00	2,00	2,33	2,58
Sierra del Rincón	Spain	2,00	2,50	2,50	3,33	2,58
Aggtelek	Hungary	1,50	3,75	3,00	2,17	2,60
Santana Madeira	Portugal	3,00	2,75	2,00	2,67	2,60
Terras do Miño	Spain	2,00	3,25	2,50	2,83	2,65
Mura Drava Danube	Hungary	2,00	3,75	2,50	2,33	2,65
Valle del Cabriel	Spain	1,50	3,00	3,00	3,17	2,67
Hortobágy	Hungary	1,50	3,75	3,50	2,00	2,69
Asterousia Mountain Range	Greece	3,00	3,50	3,00	1,33	2,71
Somiedo	Spain	2,00	3,50	2,00	3,33	2,71
Berezinskiy	Belarus	2,50	3,75	2,50	2,17	2,73
Žuvintas	Lithuania	1,50	3,50	3,50	2,50	2,75
Alto Turia	Spain	1,50	3,75	4,00	1,83	2,77
Pilis	Hungary	1,50	3,75	3,50	2,33	2,77
Kozjansko & Obsotelje	Slovenia	3,50	3,50	2,00	2,17	2,79
Archipelago Sea Area	Finland	3,50	3,25	2,50	2,00	2,81
Somma-Vesuvio and Miglio d'Oro	Italy	3,00	3,25	2,50	2,50	2,81
Lake Fertő	Hungary	1,50	3,75	3,00	3,17	2,85
Carpathian	Ukraine	2,00	3,75	3,00	2,67	2,85
Picos de Europa	Spain	2,00	3,50	2,50	3,50	2,88
Tejo/Tajo Internacional	Portugal	3,50	3,25	2,50	2,33	2,90
Los Ancares Leoneses	Spain	2,00	3,00	3,00	3,67	2,92
Los Argüellos	Spain	2,00	3,00	3,00	3,67	2,92
Los Valles de Omaña y Luna	Spain	2,00	3,00	3,00	3,67	2,92
Falasorma-Dui Sevi	France	2,00	4,00	3,00	2,67	2,92
Selve Costiere di Toscana	Italy	2,00	3,50	3,00	3,17	2,92
Circeo	Italy	3,50	3,25	2,50	2,50	2,94
Valles del Jubera, Leza, Cidacos y Alhama	Spain	1,50	3,50	3,00	3,83	2,96
Bialowieza	Poland	1,50	3,75	3,00	3,67	2,98
East Carpathians	Ukraine	2,00	3,75	3,00	3,17	2,98

Sierra de Grazalema	Spain	2,50	3,50	2,50	3,50	3,00
Sila	Italy	3,50	3,25	3,00	2,33	3,02
Os Ancares Lucenses y Montes de Cervantes, Navia y Becerreá	Spain	2,00	3,25	3,00	3,83	3,02
Mancha Húmeda	Spain	2,00	3,50	3,00	3,67	3,04
Castro Verde	Portugal	2,00	3,50	3,00	3,67	3,04
Pribuzhskoye-Polesie	Belarus	2,00	3,75	3,00	3,50	3,06
Isle of Man	UK of GB and Northern Ireland	3,50	3,75	3,50	1,67	3,10
Chernomorskiy	Ukraine	2,00	3,75	3,50	3,17	3,10
Belovezhskaya Pushcha	Belarus	3,50	3,50	3,00	2,50	3,13
Real Sitio de San Ildefonso - El Espinar	Spain	2,00	3,50	4,00	3,00	3,13
Sumava	Czechia	3,50	3,00	2,50	3,50	3,13
Krivoklátsko	Czechia	3,50	3,00	2,50	3,50	3,13
Krkonoše	Czechia	3,50	3,00	2,50	3,50	3,13
Marismas del Odiel	Spain	2,50	3,50	3,00	3,50	3,13
Gorge of Samaria	Greece	1,50	3,75	3,50	3,83	3,15
Blekinge Archipelago	Sweden	3,00	4,00	3,00	2,67	3,17
Redes	Spain	2,00	3,50	4,00	3,17	3,17
Ponga	Spain	2,00	3,50	4,00	3,17	3,17
Třebon Basin	Czechia	3,50	3,00	2,50	3,67	3,17
Dunaisky	Ukraine	2,00	4,00	3,00	3,67	3,17
Valle de Laciana	Spain	2,00	3,75	3,00	4,00	3,19
Askaniya-Nova	Ukraine	2,00	4,00	3,50	3,50	3,25
Paúl do Boquilobo	Portugal	2,00	3,75	3,50	3,83	3,27
Tchervenata sténa	Bulgaria	3,50	3,50	3,50	2,67	3,29
Roztocze	Poland	2,00	4,00	3,50	3,67	3,29
Isle of Wight	UK of GB and Northern Ireland	3,50	3,75	3,50	2,50	3,31
Mount Olympus	Greece	2,00	4,00	3,50	3,83	3,33
Wester Ross	UK of GB and Northern Ireland	2,00	4,00	3,50	3,83	3,33
Tuchola Forests	Poland	2,00	4,00	3,50	4,00	3,38
Lake Vänern Archipelago	Sweden	2,00	4,00	3,50	4,00	3,38
East Vättern Scarp Landscape	Sweden	2,00	4,00	3,50	4,00	3,38
Vindelälven-Juhttááhka	Sweden	2,00	4,00	3,50	4,00	3,38
Puszcza Kampinoska	Poland	3,50	3,25	3,50	3,50	3,44
Nedre Dalälven River Landscape	Sweden	4,00	4,00	3,00	2,83	3,46
Ouzounboudjak	Bulgaria	2,00	4,00	4,00	3,83	3,46
Tatra	Poland	3,50	3,75	3,50	3,17	3,48
Krkonoše / Karkonosze	Poland	3,50	3,75	3,50	3,33	3,52
Mura River	Slovenia	4,00	3,75	3,00	3,33	3,52
North Vidzeme	Latvia	3,50	4,00	3,50	3,17	3,54
Collemeluccio-Montedimezzo Alto Molise	Italy	3,50	3,75	3,50	3,50	3,56
Kerry	Ireland	3,50	4,00	3,50	3,50	3,63
Tara River Basin	Montenegro	3,50	4,00	3,50	3,50	3,63
Backo Podunavlje	Serbia	4,00	4,00	3,00	3,50	3,63

Babia Gora	Poland	3,50	3,50	3,50	4,00	3,63
Masurian Lakes	Poland	3,50	4,00	3,00	4,00	3,63
East Carpathians	Poland	3,50	4,00	4,00	3,17	3,67
West Polesie	Poland	3,50	3,75	3,50	4,00	3,69
Miramare	Italy	3,50	4,00	3,50	3,83	3,71
Slowinski	Poland	3,50	4,00	3,50	3,83	3,71
Voxnadalen	Sweden	4,00	4,00	3,00	3,83	3,71

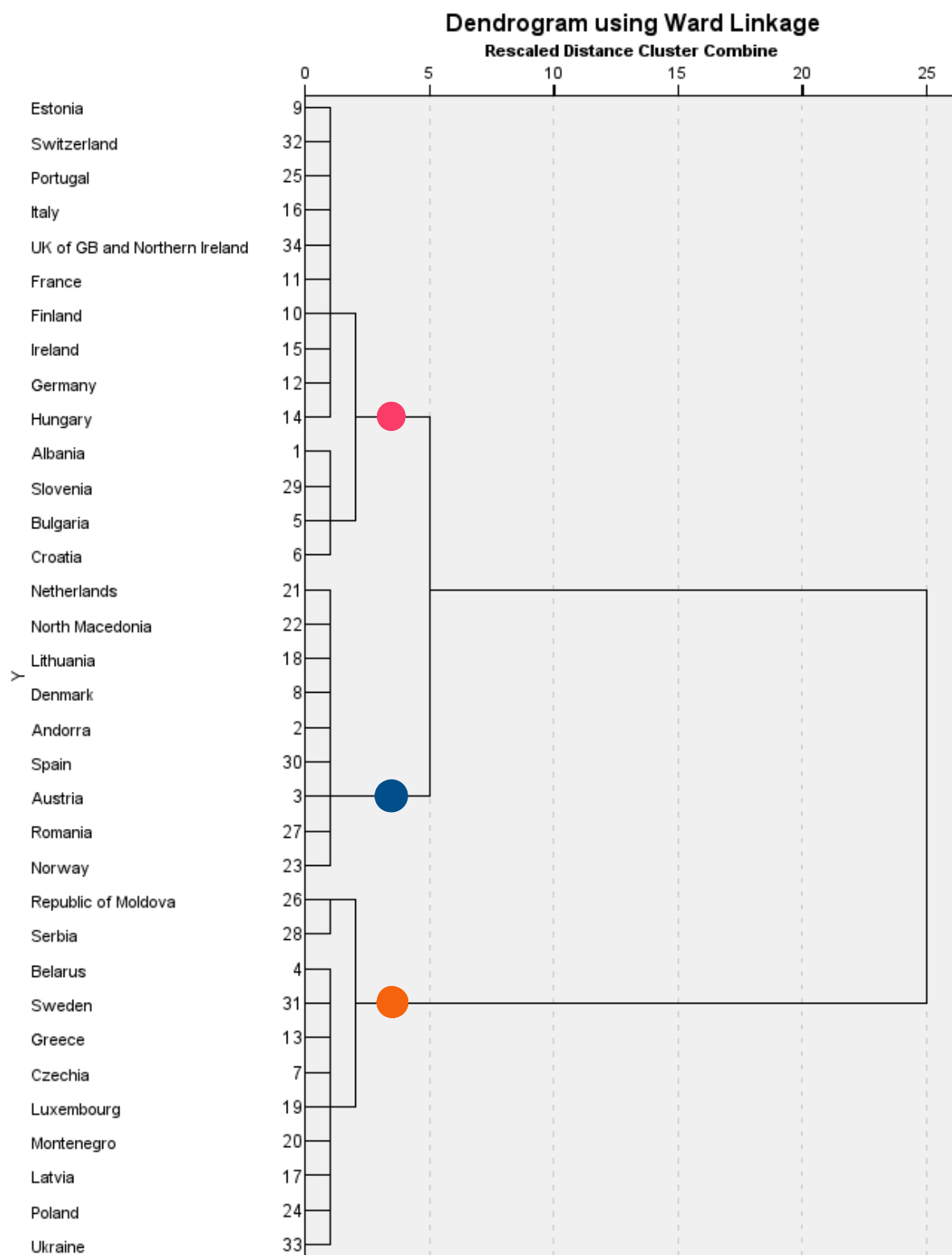
Zdroj: vlastné spracovanie výsledkov výskumu

Príloha 45 Dendrogram priemerného hodnotenia všetkých otázok analýzy plánov biosférických rezervácií na európskom kontinente



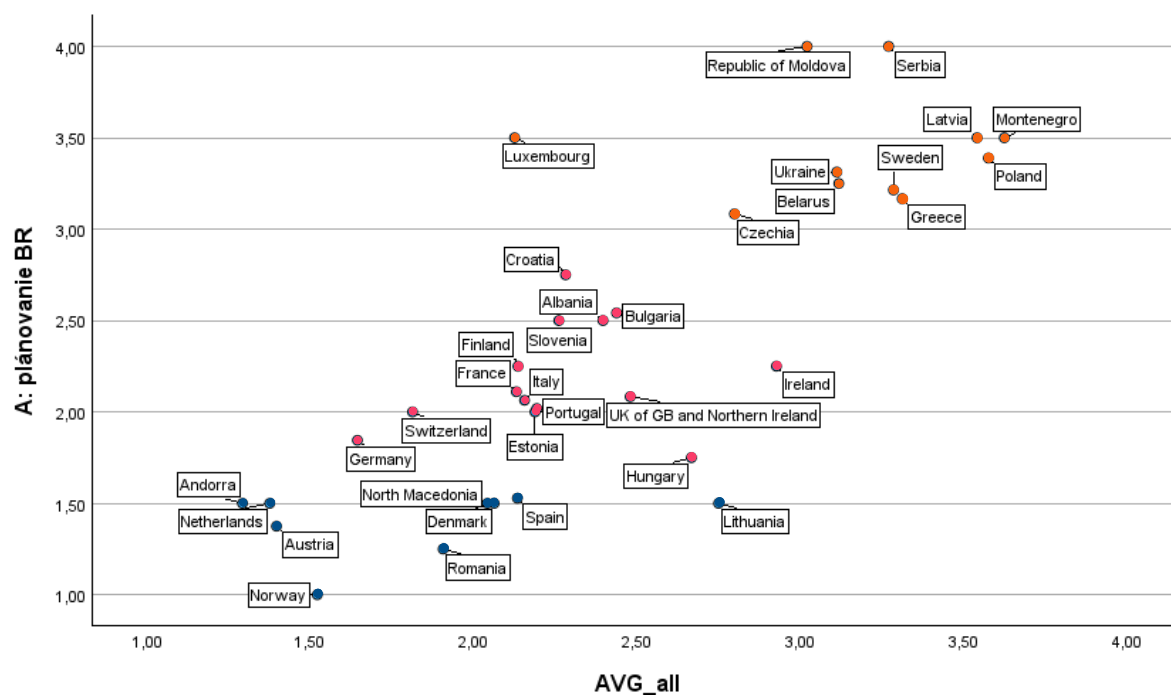
Zdroj: výstup SPSS výsledkov výskumu

Príloha 46 Dendrogram priemerného hodnotenia otázok skupiny A analýzy plánov biosférických rezervácií na európskom kontinente



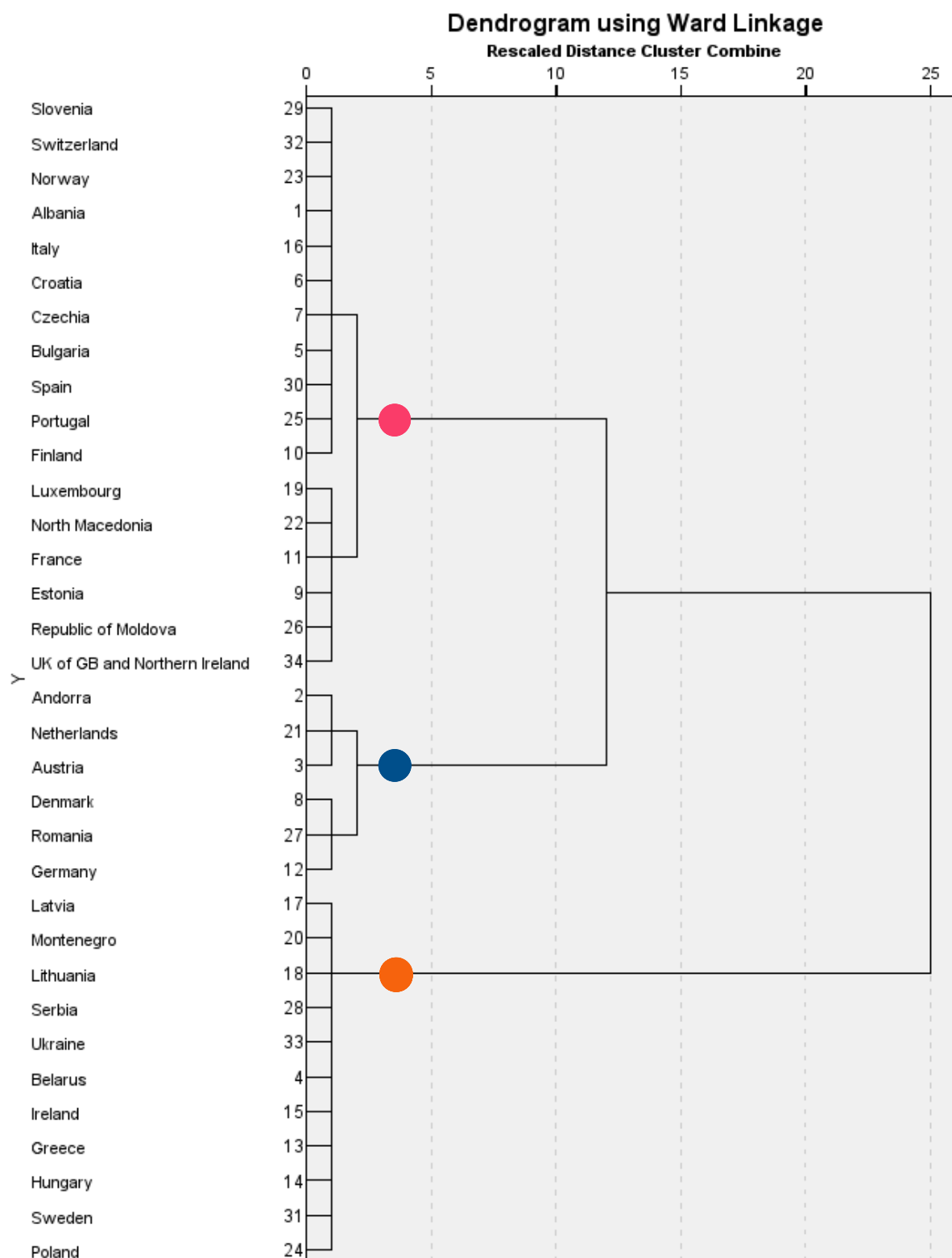
Zdroj: výstup SPSS výsledkov výskumu

Príloha 47 Graf priemerného hodnotenia otázok skupiny A analýzy plánov biosférických rezervácií na európskom kontinente



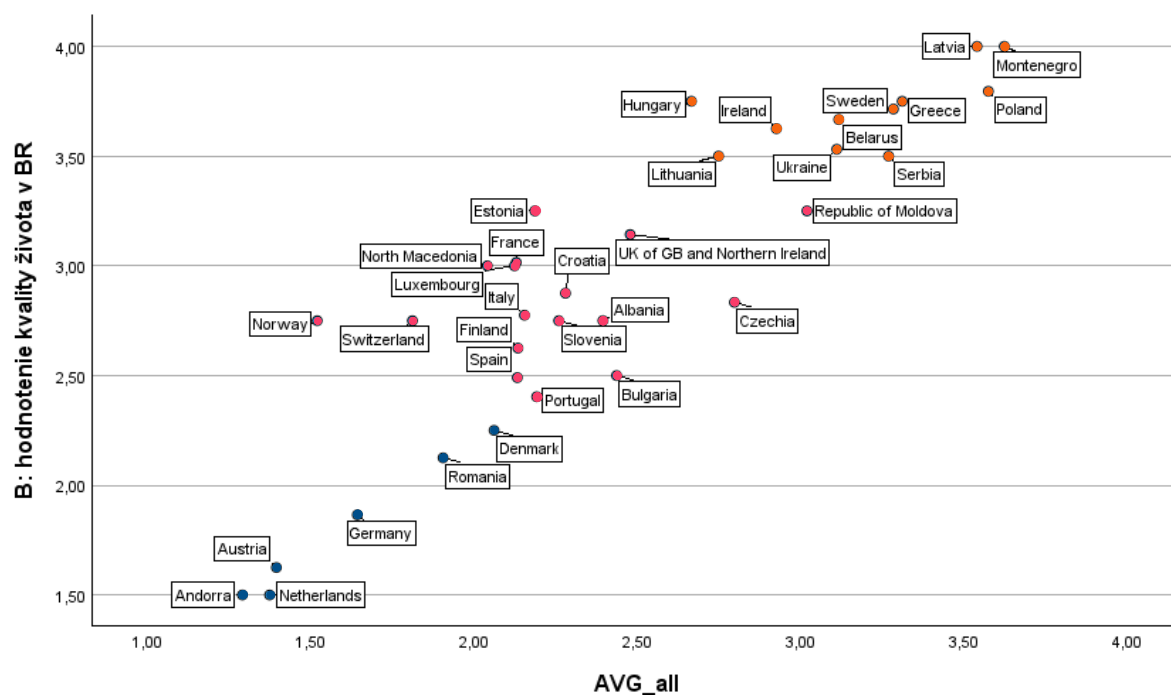
Zdroj: výstup SPSS výsledkov výskumu

Príloha 48 Dendrogram priemerného hodnotenia otázok skupiny B analýzy plánov biosférických rezervácií na európskom kontinente



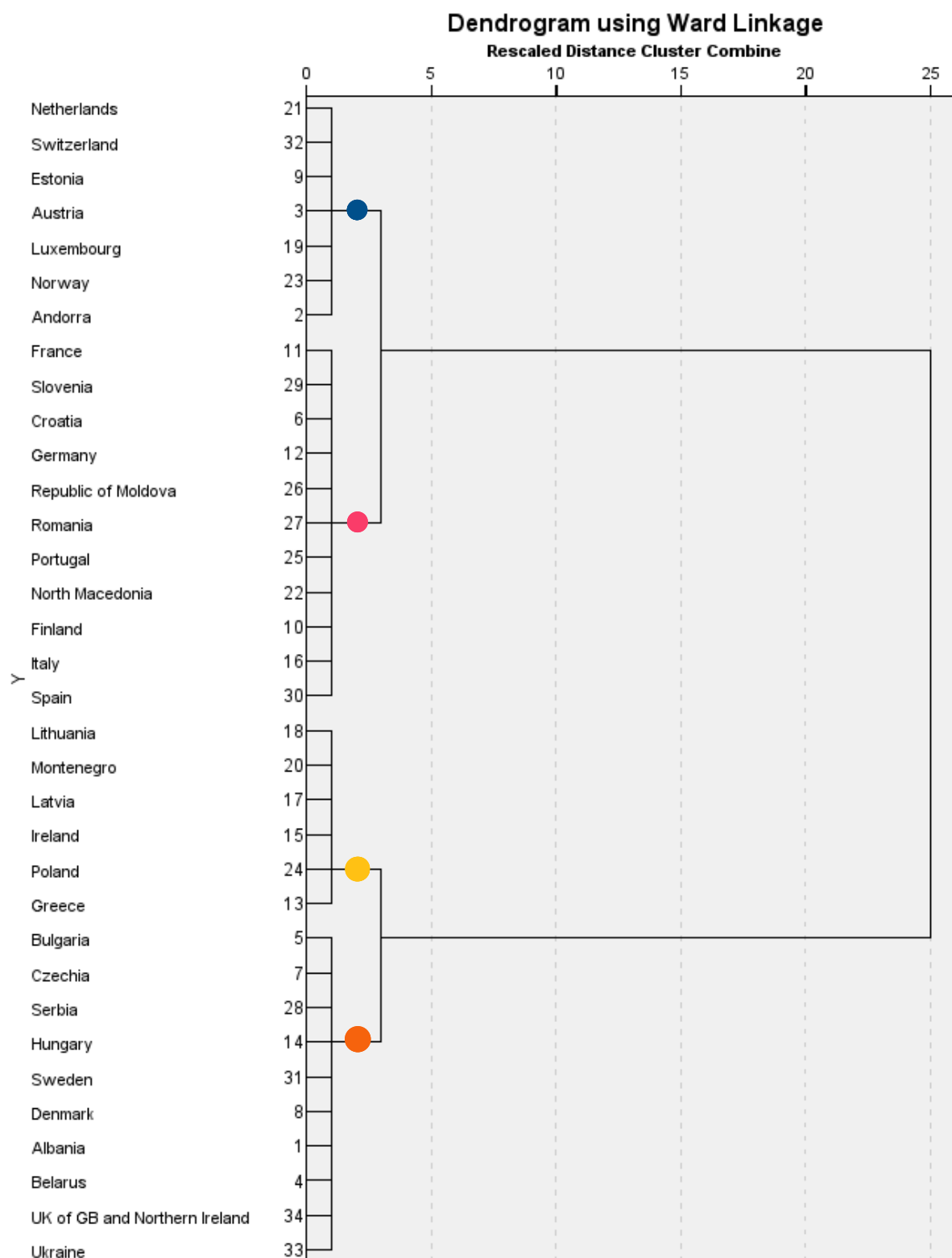
Zdroj: výstup SPSS výsledkov výskumu

Príloha 49 Graf priemerného hodnotenia otázok skupiny B analýzy plánov biosférických rezervácií na európskom kontinente



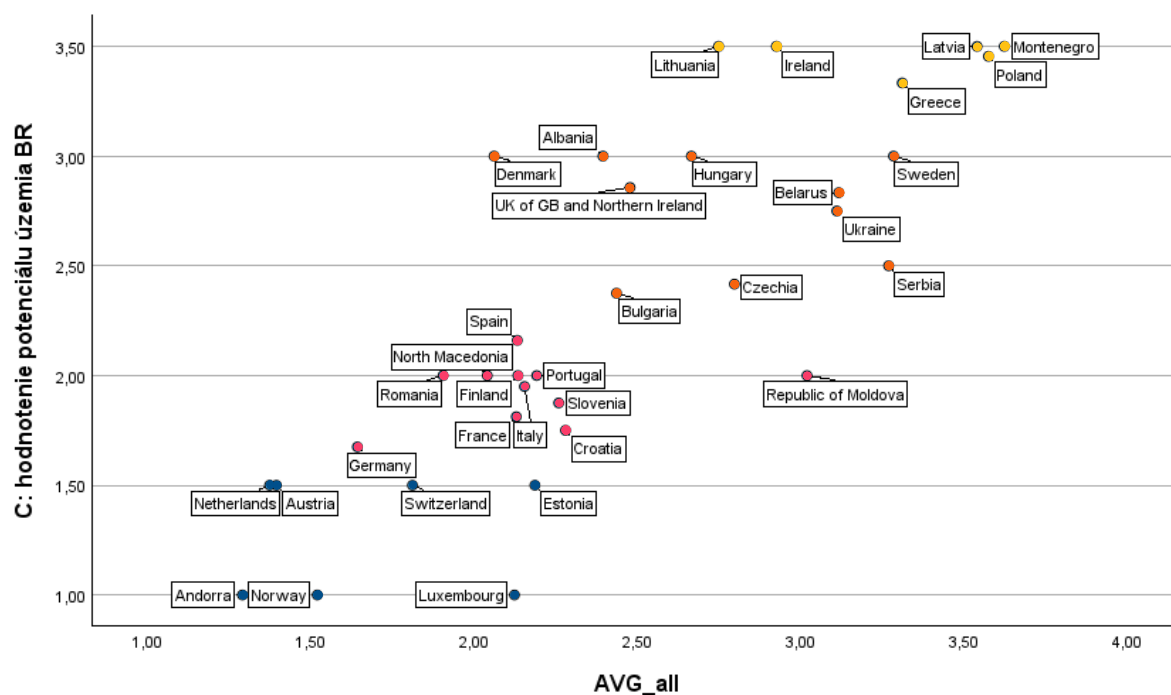
Zdroj: výstup SPSS výsledkov výskumu

Príloha 50 Dendrogram priemerného hodnotenia otázok skupiny C analýzy plánov biosférických rezervácií na európskom kontinente



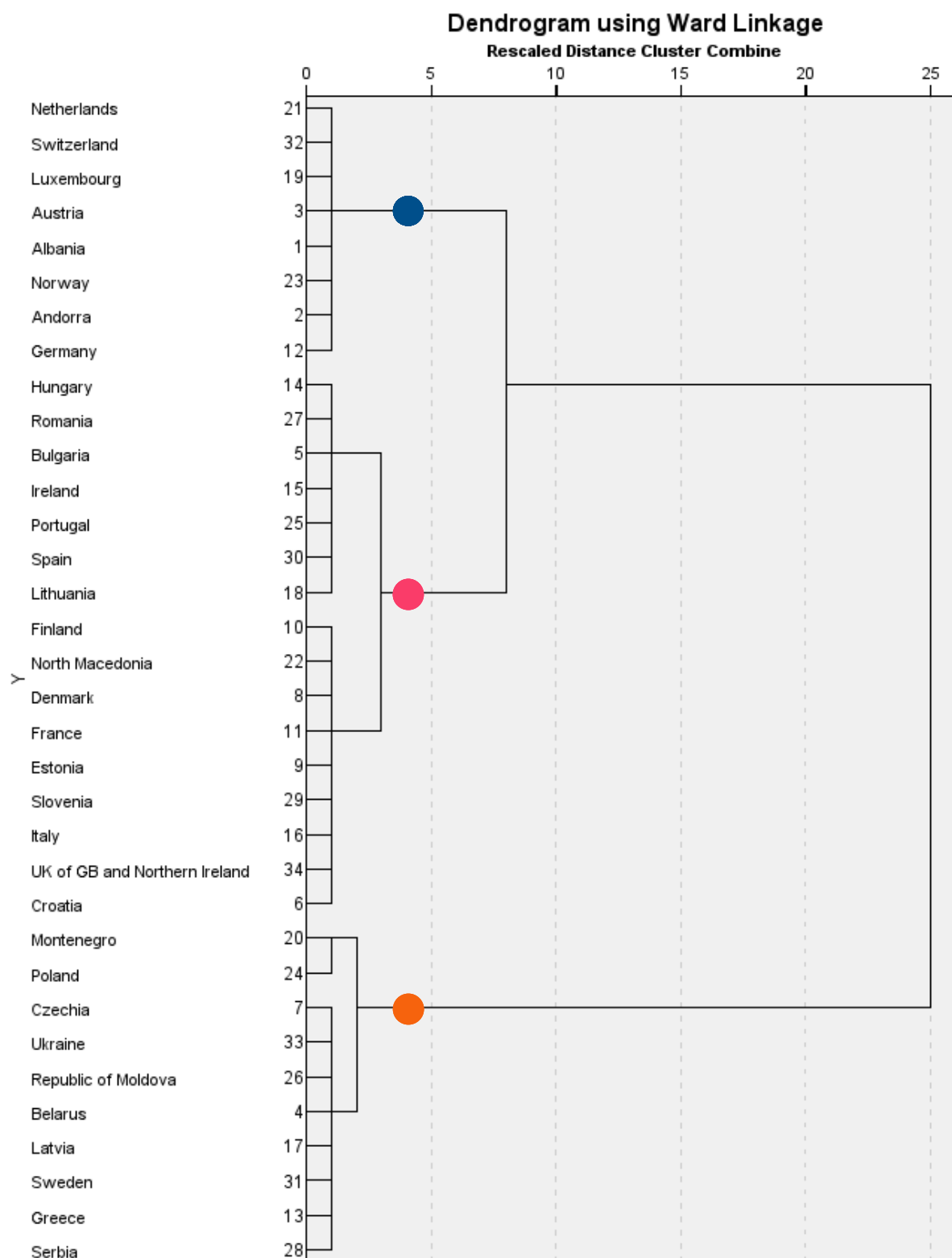
Zdroj: výstup SPSS výsledkov výskumu

Príloha 51 Graf priemerného hodnotenia otázok skupiny C analýzy plánov biosférických rezervácií na európskom kontinente



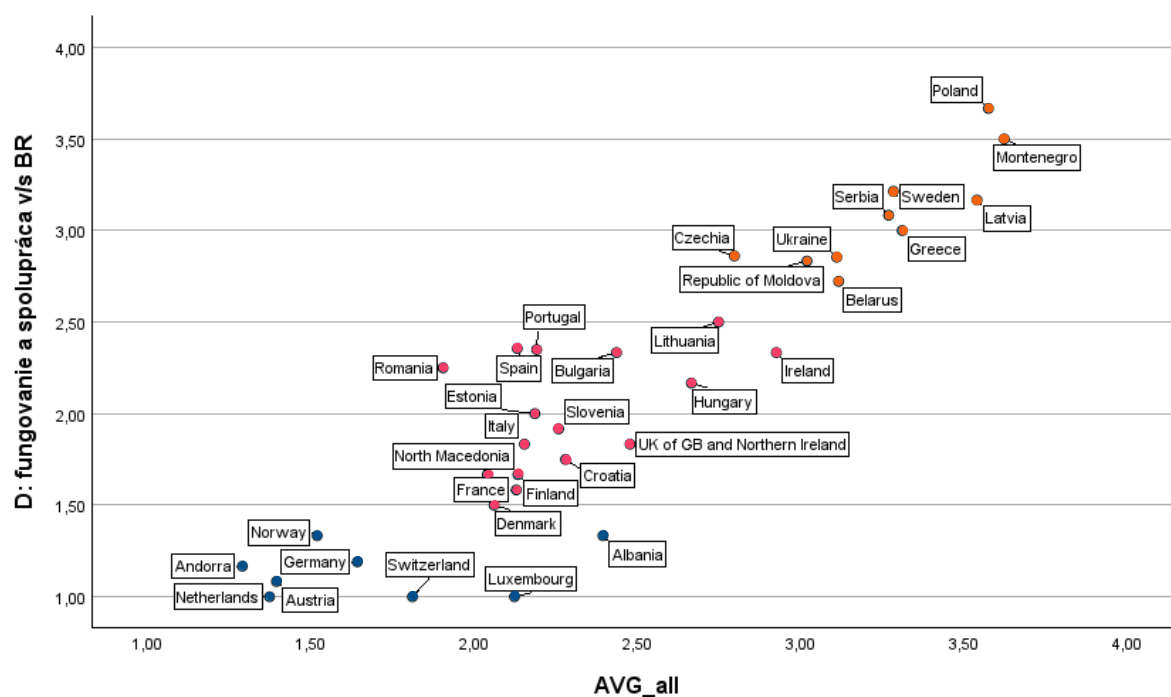
Zdroj: výstup SPSS výsledkov výskumu

Príloha 52 Dendrogram priemerného hodnotenia otázok skupiny D analýzy plánov biosférických rezervácií na európskom kontinente



Zdroj: výstup SPSS výsledkov výskumu

Príloha 53 Graf priemerného hodnotenia otázok skupiny D analýzy plánov biosférických rezervácií na európskom kontinente



Zdroj: výstup SPSS výsledkov výskumu