Chapter 9

Spatial planning of tourism in protected nature areas in Slovenia and the tourism carrying capacity of Škocjan Caves Regional Park

Igor Jurinčič

Abstract

In this chapter, we assess the importance of spatial planning for the successful implementation of sustainable tourism in protected nature areas. We have found that joint development of planning and comprehensive cooperation between protected area management and the local community is crucial. This is shown by analysis of the preparation of adopted spatial acts for certain protected areas in Slovenia. Since these are mainly areas that extend into the territory of several neighbouring municipalities, it is clear that such protected nature areas should be regulated by regional spatial plans.

Key words: spatial planning, protected areas, regional spatial plan, environmental impact assessment, carrying capacity, Slovenia

Introduction

Following the prevailing processes of industrialisation and urbanisation that ran through the end of 1980s, the rise of the importance of biodiversity and the implementation of the sustainable development paradigm took place in Slovenia in the 1990s. The global proclivity for draining land to encourage intensive agricultural exploitation and urbanisation was partially replaced by the process of renaturation and protection of areas of relative-

ly) unspoiled nature, especially wetlands, for purposes of conservation of biodiversity, under the influence of Agenda 21 and the Ramsar Convention. This procedural change was followed by spatial planning, periodical evaluations of spaces in accordance with changes in the economic situation, and the coordination of various interests in the region (Jurinčič, 2011).

Regional development and spatial planning in the European Union is based on regional policies and pre-defined developmental priorities and financial perspectives—at the regional level these are realised via regional development programmes (RDP). For such pre-defined development projects that are in accordance with the *Spatial Planning Act* (2007), state, regional, and local governmental bodies prepare spatial plans in order to enact appropriate spatial interventions.

Spatial planning in protected areas is a good tool for management organisations and is the result of cooperation with the local community and other stakeholders in protected areas and their surroundings. Park management authorities can implement a sustainable tourism strategy, conceive and carry it out in their plans, and define protection and development aims within the spatial planning process.

Spatial planning at the national, regional, and local levels

At present, 13.3% of total Slovenian territory is protected (as areas of nature), out of which Triglav National Park represents 4.1% of the total territory of Slovenia (Slovenian Environment Agency, 2019b). Thereby, 3 regional parks, 46 landscape parks, 1 strict natural reserve, 56 natural reserves, and 1,164 natural monuments are protected. With the implementation of the *Spatial Development Strategy of Slovenia* (Bartol, 2004) in July 2004, it was estimated that protected nature areas would come to cover 33% of Slovenia's territory in the future. To a large extent, the development of sustainable and eco-tourism in protected natural areas is the recommended practice. However, there are some shortcomings in the implementation of such plans: the shortage of qualified labour; lack of financing and appropriate expertise; lack of interest in municipalities; and lack of political support—not to mention problems stemming from the reorganisation of states at the local governance level, and almost non-existent inter-sectoral mutual interest and cooperation (Jurinčič and Bojnec, 2009).

In April 2004, Slovenia endorsed and confirmed the proposal establishing Natura 2000 areas. Slovenia has been identified as having the highest level of biological diversity in the EU. Two hundred and eighty-six are-

as have been identified, out of which 260 have been identified on the basis of regulation of habitats (32% of Slovenian territory) and 26 on the basis of regulation of birds (23% of Slovenian territory) (Fig. 1). Often, there is an

Fig. 1 Natura 2000 areas in Slovenia
 Source: Slovenian Environment Agency, 2019a

overlap of these geographical areas, because 60% of the areas proposed on the basis of regulation of habitats are also included within the proposed special protected areas for regulation of birds. Both types of Natura 2000 areas (habitats and birds) together cover 36% of Slovenian territory in total.

Most of the protected areas are covered by forests (70,6%), which is the prevailing landscape in Slovenia. A significant proportion of its protected areas are rocky land areas without vegetation, 9% of protected areas are situated above the tree line, and a significant proportion is covered by grassland. Twenty-five percent of Slovenia's territory is located within the boundaries of its protected areas (Triglav National Park, regional and landscape parks, as well as in reserve and natural monuments), which are also Natura 2000 areas.

The preservation of nature, particularly of biodiversity, is not the task of the natural resources protection sector alone, which does not have sufficient staff and resources for this purpose. Therefore, the natural resources protection sector needs to be developed further and particularly strengthened with partnerships and cooperation with other participating sectors, such as forestry, agriculture, tourism, and similar activities, which operate within most natural attractions. More resources to support biotical diversity, provide advice, and monitor the implementation of nature protection or conservation programmes should also be reoriented toward these goals.

At the time of writing, the Slovenian state has not yet set up a system to provide protected nature areas with the implementation of a scheme that would insure a comparative advantage to make up for the constraints in economic development that are caused by nature protection imperatives. Regardless of the fact that protected nature areas provide general environmental benefits, they also have an important economic role. The current situation of management of protected nature areas is associated with generally-accepted normative protection, which is based on a system of laws and restrictions that do not provide enough attention, resources, and expert support in practice.

On the other hand, Slovenia has had some positive experiences in the implementation and monitoring of protected nature areas, such as in Triglav National Park, Škocjan Caves Regional Park, Notranjska, and Kozjansko, nature parks in Logar Valley, Goričko, the Ljubljana Marsh, the Kolpa River, Sečovelje and Strunjan Saltpans, and Škocjanski zatok Nature Reserve. All these protected areas have a management organisa-

tion which is responsible for the protection of nature and the development of environmentally-friendly activities. Comparative advantages based on providing environmental goods have been identified as particularly important in tourism development. This is, however, not well known, visible or well presented to the broader society, local communities, and local economies, which are situated in territories envisaged for protected areas in Slovenia.

Therefore, it is advisable to organise visits for the local population to see “examples of good practice” in these matters, so that stakeholders—from residents to business people—could learn about successful examples of developing activities related to the maintenance of nature parks and means of cooperation between the management of parks and the local population (Jurinčič and Bojnec, 2007). Management organisations of nature parks provide local communities with advisory support to develop and implement their own ideas, initiatives, and innovations, as well as support for project development and business plans—in order for them to be more successful in gaining financial support from domestic and international sources.

Local communities must be aware of the exceptional development potential of organic farming and ecological tourism in protected nature areas (Cigale et al., 2010; Podmenik et al., 2012; Potočnik Slavič et al., 2016). The opinion of local people is crucial in the process of spatial planning as they are invited to participate in the public hearings of all proposed spatial plans. It is therefore important that local population be included in the preparation of management plans for nearby protected areas.

The *Spatial Planning Act* (2007) provides for spatial interventions spanning the territory of two or more municipalities and the elaboration of an inter-municipal plan, or regional spatial plan. Regional spatial plans also provide for the regulation of infrastructure projects that are planned in regional development programmes (RDP). Because cooperation between municipalities has not yet been formally solidified, municipal councils must adopt decrees regarding regional spatial plans, with an appropriate text and cartographic attachments. Thereby, interventions in areas that cover the territory of several municipalities and infrastructure of national importance shall be governed by national spatial plans (NSP), and accepted and confirmed by the national government.

For spatial interventions in the neighbouring zones of protected areas to meet the needs of sports and recreation they must consider the NSPs or

spatial plans (*lokacijski načrt* or LN) and a regulatory plan (*ureditveni načrt* or UN) prior to the enactment of the *Spatial Planning Act* in 2007; for some examples: Šmartinsko Lake, the Lipica Stud Farm (phase 1) and Škocjanski zatok Nature Reserve. Work is in progress for NSP Lipica Stud Farm (phase 2) and the area of Celje Hut (*Insight into the procedures for the preparation of state spatial planning acts*, 2019).

Within the spatial plan for Škocjanski zatok Nature Reserve (*Ordinance on the regulatory plan for the area of the Škocjanski zatok Nature Reserve*, 2002), plans were made for restorations, observatories, a visitor centre, and trails (Vidmar, 2004). More than 2 km of circular trail was constructed, laid out along the border of the freshwater part of the reserve. The trail starts from the visitor centre, which is located in the easternmost part of the reserve. The visitor centre was opened in March 2016 (Fig. 2) and ponds of various shapes and sizes were created along its length, which were quickly settled by invertebrates and amphibians. Furthermore, these ponds serve as models that help visitors get a closer look at the life in the marsh. The material excavated during the creation of the freshwater marsh was used to construct screening embankments along the newly-formed circular trail,

Fig. 2 The visitor centre in Škocjanski zatok Nature Reserve
Photo by Igor Jurinčič, 2016

in order to prevent disturbance of wildlife on the part of visitors. Currently there are six full-time wardens employed at the reserve, which was enabled using EU funding.

The spatial plan was the appropriate legal basis for management to obtain all required permissions and building permits for the reserve's restoration and construction of visitor facilities (trails, visitor centre, observation posts); this was implemented and financed through public funds (EU, state, municipality) and the European projects "Life", "Life +", "Interreg Slovenia – Italy", as well as the European Regional Development Fund (ERDF). Some projects were also financially supported by the Port of Koper. Spatial and environmental planning has to be strictly in line with nature protection measures that are conditional on successful development, in the sense of ecologically-oriented tourism activities as parts of an integral tourist product (Balažič et al., 2011).

Environmental impact assessment

During the procedure of issuing a building permit for spatial interventions it is necessary to elaborate an environmental impact assessment (EIA), and an environmental report or a comprehensive environmental impact assessment is required for any spatial intervention in a protected area. The result of the environmental report usually authorises an intervention in the space with minor corrections to the project; for example, the extension of the golf course in Lipica (Smrekar and Kolar Planinšič, 2009).

Planned spatial interventions are very rarely rejected because of unacceptable impacts on the environment. One such case was the plan to establish 33 wind power generators on *Volovja reber* below Snežnik Mountain (in a Natura 2000 area), which was rejected because of its potential negative impact on birds. This led interested parties to find more suitable locations for wind power stations in Slovenia, taking into account a conservationist point of view at an early stage of spatial planning.

Strategic environmental assessments (SEA) or comprehensive environmental impact assessments are an important European environmental policy tool. It is based on transposition and implementation of the Strategic Environmental Assessment Directive (Directive 2001/42/EC) for plans and programmes. Strategic environmental assessments have been performed for the current Regional Development Operational Programme and other plans in Slovenia. In the case of spatial planning for Lipica, an SEA and environmental report with appropriate assessments according to the Habitats

Directive was carried out. Recommendations were made to investors to slightly modify the planned distribution of golf holes on the golf course, in order to avoid the protected Natura 2000 area. This can be seen in Fig. 3.

Carrying capacity analysis

The World Tourism Organisation (UNWTO) and the United Nations Environment Programme (UNEP) recommend that, apart from holistic physical planning, efficient tourist destination management should include a carrying capacity analysis for individual tourist destinations and areas (Guidelines for Carrying Capacity Assessment for Tourism in Mediterranean Coastal Areas, 1996). Planned and possible improvements in different development programmes and strategies, suggested by local residents and tourists, should also be taken into consideration (Jurinčič et al., 2007).

Current practice confirms that the analysis of carrying capacity is an essential process in spatial planning that is intended for examination of an area in the preparation process of municipal development strategies of tourism. Škocjan Caves Regional Park was the first tourist attraction in Slovenia on the global list of natural and cultural heritage of UNESCO and certainly deserves special attention. We are going to determine the carrying capacity of the cave, i.e. the maximum number of visitors allowed to be in the cave at a given time. Based on this analysis, we are also going to propose some measures that could be taken in order to monitor and increase the calculated carrying capacity for tourism, which would enable the implementation of a sustainable tourism development scenario in Škocjan Caves Regional Park.

The Fig. 4 shows all visitors between 1999 and 2019. It is evident that the number of visitors has been growing over the last 20 years. Since 2011, there has been a tour of an additional part of Škocjan Caves—Mahorčič and Marinič caves near Škocjan, where the Reka River goes underground. In this new part of the park, an individual tour following the Reka River's journey underground is available in the summer. The park's staff and guides are located at key points throughout the cave system, and visitors can explore without expressed guidance. In the spring and in October, a guided tour is organised in this part of the cave system. In the winter, this part of the cave is closed, because the trail runs next to the river and, in the colder months, is often flooded.

Fig. 3 Proposal for the distribution of golf holes after the inclusion of an environmental perspective

Source: Smrekar and Kolar Planinšič, 2009

Fig. 4 Number of visitors per year and month in the 1999–2019 period

Source: Škocjan Caves Public Service Agency, 2019

The number of cave guides increased accordingly with the increased number of visitors (Fig. 5), which was established in a 2010 visit analysis (Jurinčič and Balažič, 2011).

It needs to be emphasised that the carrying capacity of Škocjan Caves is directly related to the number of available guides. They can offer a quality interpretation and, at the same time, ensure the appropriate behaviour of visitors in a highly sensitive natural environment, but only when there is a manageable number of visitors in a given group. Therefore, the park management has put a lot of effort in recent years into finding suitable staff and also train them to be licenced cave guides. The number of visitors is restricted by park management according to the number of guides available. A maximum of 50 visitors is the limit per guide for guided tours of the cave, and 25 visitors per guide for tours around the park.

The park management has also been investing a lot of effort into extending the tourist season, including through pricing of tickets. This is evident from figures 4 and 5. They have structured three different price brackets for the best-selling “Through the underground canyon” tour of Škocjan

Fig. 5 Number of tourist guides per month in the 2009–2019 period

Source: Škocjan Caves Public Service Agency, 2019

Caves. During the winter months, ticket costs €16.00, in the spring and autumn €18.00, and in the summer months €20.00 (the prices are based on the year 2019). They also have some special offers and discounts during the off-season, when organised groups (e.g. school groups and various interest groups) are invited. This means that the seasonal employment of cave guides was extended from the original four months to seven months (Fig. 5). As of 2019, online ticket sales are available for cave tours.

A new museum collection “History of Discovering Škocjan Caves” was opened in the park in 2015. Since 2016, a virtual tour of Škocjan Caves with VR glasses is available for people who are (for whatever reason) unable to enter the cave but want to take the tour. In addition to tours of Škocjan Caves, various events, congresses and seminars are also held in the Park. Tours are offered for both tourists and experts (for example with *Škocjan Learning Trail*, established in 2003) and museum collections (ethnological, archaeological, geological, and cave history) have been arranged in some formerly-abandoned and decaying structures of the settlements Betanja, Škocjan, and Matavun.

A new car park was constructed in 2017 in the central part of the park's reception centre, where the information point is located, in accordance with all nature protection standards. Felt was placed on the ground to prevent water from entering the underground waterways and covered with asphalt in the middle of the parking areas; grease and oil traps were also installed, through which the storm water drains into the storm sewer. Additional parking was arranged at the exit from the highway at Divača in the Risnik Business Zone, taking into account the guidelines regarding reducing the amount of traffic in protected areas and not increasing the size and amount of parking lots. From there, a free shuttle service to the park's reception centre is organised for visitors during the summer months. The park has also organised a year-round free shuttle bus service for visitors arriving in Divača by train or bus, in cooperation with Slovenian Railways.

In 2018, Škocjan Caves were visited by 184,230 visitors (22,166 domestic and 162,064 foreign guests). By country of origin (for some guests, country of origin is unknown), the largest group of foreign guests were British (32,018), followed by Italians (18,380), Germans (17,264), then guests from Czechia, France, Spain, USA, Netherlands, Poland, and Hungary (Fig. 6). It is evident that the structure of visitors by country of origin did not change significantly from 2018 to 2019.

Fig. 6 Share of visitors in Škocjan Caves by country of origin in 2018

Source: Škocjan Caves Public Service Agency, 2019

Calculation of the carrying capacity of the cave according to visit:

- Length of the classical circular path through the underground canyon = 3,000 m
- Duration of the tour with a guide = 90 minutes
- The rate of 10 m of space per visitor on the trail, according to Brijuni National Park in Croatia (Guidelines for Carrying Capacity Assessment for Tourism in Mediterranean Coastal Area, 1996)
- $3000 \text{ m total} \div 10 \text{ m per visitor} = 300 \text{ visitors max on a thematic pathway simultaneously}$
- $300 \text{ visitors} \div 20 \text{ visitors per group} = 15 \text{ guides (groups) simultaneously in the cave}$
- Maximum number of visits to the cave is 18 visits/day, every 30 minutes from 9:00 AM to 17:30 PM
- $100 \text{ visitors} \times 18 \text{ visits} = 1,800 \text{ visitors/day (the carrying capacity of the cave)}$
- Maximum number of visits to the cave, which may be provided by each guide is 5 visits/day (18 visits every 30 minutes from 9:00 to 17:30)
- $18 \text{ visits} \times 15 \text{ guides} \div 5 \text{ guides} = 270 \text{ groups} \div 5 \text{ guides} = 54 \text{ guides/day needed in the high season}$
- There are currently only 50 guides in the high season

The decision of the park management regarding the maximum number of 50 visitors per cave guide is, in the opinion of the author, inappropriate. In practice and literature, it is recommended to have guided tours in small groups, max 30 visitors per guide, and 15 visitors per guide are recommended in nature parks (Fenell, 2008). Therefore, more guides should be employed during the summer season, who will be able to carry out not just better interpretation, but also adequate nature protection control.

In order not to exceed the hourly carrying capacity of 200 visitors/hour, we advise that the park administration create a new schedule of cave visits in the summer. Given that a visit to the cave lasts 90 minutes, it would be more appropriate to anticipate cave visits every half hour, when up to 100 new visitors could enter the cave. This would make it easier to get closer to the norm of the maximum of 300 visitors at a time in the cave. The calculation of the cave's carrying capacity with visits to the cave every half hour and extending daily working hours by 1.5 hours shows that the maximum

number of tourists who could visit the cave is 1,800. For 1,800 visitors a day, 54 guides should be provided instead of the current 50 guides, considering the ideal maximum of 20 visitors per guide.

With the existing schedule of visits to the cave at each hour and 240 visitors per hour at the peak of the summer season, the park significantly exceeds its carrying capacity and the target set in the work report for 2018 (Škocjan Caves Public Service Agency, 2019) which is a maximum of 130 visitors every half hour. In the summer season of August 2019, the capacity of the cave was exceeded on 13 days (Fig. 7).

Fig. 7 Number of visitors per day in Škocjan Caves in August 2019

Source: Škocjan Caves Public Service Agency, 2019

Conclusion

Within the spatial planning process, we must identify and seek to reduce any conflicts that may arise between the different stakeholders in a given protected area. With the introduction of the process of spatial planning in protected areas in Slovenia, we found that tourism supports and does not necessarily reduce the quality of life of local residents, when local communities are involved in the planning of tourism and recreation in the area. An integrated planning and management approach can provide good long-term communication between park management authorities, local residents, and visitors. We propose further application of internationally established concepts and tools which are critical for successful spatial planning

of tourism as well as for a better understanding of its impacts, in order to aid in mitigating potential problems.

Tourism carrying capacity assessments (Jurinčič, 2009; Jurinčič and Balažič, 2011) are a useful tool, based on the perception that tourism cannot continually grow in a protected area without causing irreversible damage to the local system. Furthermore, strategic environmental assessments and environmental impact assessments can be helpful decision-making processes used to promote good environmental planning by assessing the potential effects and benefits of tourism activities on the environment.

Protected areas generally cover several municipalities and require inter-municipal spatial planning of appropriate activities. Therefore, in Slovenia, the re-establishment of a system of regional spatial planning, which would provide a comprehensive and long-term solutions for sustainable planning and management of protected areas, is needed. This can be seen in new spatial planning legislation that is now public (*Law on Spatial Planning*, 2017). Until we establish administrative regions and their governing bodies in Slovenia, we suggest that the role of preparing regional spatial plans be taken by regional development agencies and their spatial planning experts. The role of regional governmental bodies in confirming regional spatial plans in this transitional period—the councils of the twelve developmental regions of Slovenia—would be assumed by those who have experience with the certification of regional development programmes from periods 2002–2006, 2007–2013, and 2014–2020. This would provide the necessary conditions for the transfer of competences from the national to the regional level to introduce a “bottom-up” process of spatial planning.

Acknowledgements

The author would like to thank Mrs. Jana Martinčič from the Škocjan Caves Public Service Agency for contributing data and information.

References

- Balažič, G., Jurinčič, I., Sinkovič, L., 2011: Naravni rezervat Škocjanski zatok kot del integralnega turističnega proizvoda, in: *Razvoj zavarovanih območij v Sloveniji* (eds. Nared, J. et al.), Knjižna zbirka Regionalni razvoj, Založba ZRC, Ljubljana, 53–61.

- Bartol, B. (ed.), 2004: *Strategija prostorskega razvoja Slovenije – SPRS*, Ministrstvo za okolje, prostor in energijo, Direktorat za prostor, Urad za prostorski razvoj, Ljubljana.
- Cigale, D., Lampič, B., Mrak, I., 2010: Turistični obisk in zavarovana območja - primer Triglavskega narodnega parka, *Dela* 33, 75-96, DOI: 10.4312/dela.33.5.75-96.
- Fennell, D. A., 2008: *Ecotourism*, Routledge, London.
- Jurinčič, I., 2009: *Nosilna zmogljivosti Slovenske Istre za turizem*, Fakulteta za turistične študije Portorož Turistica, Portorož.
- Jurinčič, I., 2011: Landscape evaluation on a regional level for sustainable tourism development, in: *Sustainable World* (eds. Brebbia, C. A. et al.), WIT Press 142, Southampton – Boston, 619-628, DOI: 10.2495/SW100561.
- Jurinčič, I., Balažič, G., 2011: Determining the carrying capacity of the Škocjan Caves Park for the implementation of sustainable visitor management, in: *Tourism and quality of life, international conference proceedings, 3rd Days of Turistica Encuentros* (eds. Jere Lazanski, T. et al.), Fakulteta za turistične študije - Turistica, Portorož, 205-215.
- Jurinčič, I., Bojnec, Š., 2007: Natural park as a brand name: Dragonja's valley in Slovene Istra, in: *Strategic development of tourism industry in the 21st century: conference proceedings*, Faculty of Tourism and Hospitality, Ohrid.
- Jurinčič, I., Bojnec, Š., 2009: Environmental management in Slovenian tourist enterprises, *International Journal of Sustainable Development and Planning* 4 (3), 226-237, DOI: 10.2495/SDP-V4-N3-226-237.
- Jurinčič, I., Bojnec, Š., Vodeb, K., Bošković, D., 2007: Management of natural parks for successful tourism development, in: *Management International Conference (MIC) 2007* (eds. Bojnec, Š. et al.), Faculty of Management Koper, University of Primorska, Koper, 951-962.
- Podmenik, D., Jurinčič, I., Balažič, G., Horvat, A., Kerma, S., 2012. Turizem na ekoloških kmetijah v Sloveniji, in: *Trendi in perspektive ekološkega kmetijstva s poudarkom na Sloveniji in Slovenski Istri* (eds. Podmenik, D et al.), Vega, Ljubljana, 129-142.
- Potočnik Slavič, I., Cigale, D., Lampič, B., Perpar, A., Udovč, A., 2016: *(Ne) raba razpoložljivih virov na kmetijah v Sloveniji*, Znanstvena založba Filozofske fakultete, Ljubljana.
- Smrekar, A., Kolar Planinšič, V., 2009: Vloga celovite presoje vplivov na okolje za ugotavljanje trajnostnega razvoja na primeru Kobilarne Lipica, in: *Regionalni razvoj 2, Razvojni izzivi Slovenije* (eds. Nared, J., Perko, D.), GIAM ZRC SAZU, Ljubljana, 91-101.

Vidmar, B., 2004: Škocjanski zatok: priložnost za naravoslovni turizem tik ob mestu Koper, in: *Zavarovana območja in njihov pomen za turizem: morska učna pot Mesečev zaliv in njegovi zakladi* (ed. Gosar, A.), Univerza na Primorskem, Koper, 62-65.

Sources

Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (SEA Directive), <https://ec.europa.eu/environment/eia/sea-legalcontext.htm> (11. 10. 2019)

Guidelines for Carrying Capacity Assessment for Tourism in Mediterranean Coastal Area, UNEP/MAP/PAP, Split, 1996.

Insight into the procedures for the preparation of state spatial planning acts (Vpogled v postopke priprave državnih prostorskih aktov), Ministrstvo za okolje in prostor, http://www.mop.gov.si/si/delovna_podrocja/prostorski_nacrti/drzavni__prostorski_nacrti/vpogled_v_postopke_priprave_drzavnih_prostorskih_aktov/ (11. 11. 2019)

Law on Spatial Planning, 2017: Uradni list RS, 61/17.

Ordinance on the regulatory plan for the area of the Škocjanski zatok Nature Reserve (Odlok o ureditvenem načrtu za območje naravnega rezervata Škocjanski zatok), 2002: Uradni list RS, 119, 16734-16741.

Slovenian Environment Agency, 2019a: *Natura 2000*, http://kazalci.arso.gov.si/?data=indicator&ind_id=333 (11. 10. 2019)

Slovenian Environment Agency, 2019b: *Protected areas*, <http://www.arso.gov.si/narava/zavarovana%20obmo%C4%8Dja/> (11. 10. 2019)

Spatial Planning Act, 2007: Uradni list RS 33/07.

Škocjan Caves Public Service Agency, 2019: *Poročilo o delu Parka Škocjanske jame, Slovenija za leto 2018*, https://www.park-skocjanske-jame.si/file/download/249_5a371317c852 (11. 11. 2019)