



Use of geopark resource values for a sustainable tourism: a case study from Turkey (Cittaslow Uzundere)

Mustafa Özgeriş¹ · Faris Karahan²

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Abstract

Geoparks contain various resource values including geological, geomorphological, hydrographical values, edaphic, biological diversity, historical structures and traditional culture within themselves. The resource value of geoparks draw the attention of scientists and nature and adventure lovers. For this reason, geopark resource values constitute a significant potential for many touristic activities. Considering that this potential is planned in a sustainable manner, geopark resource values will be preserved and a contribution will be made to local and regional development as well. The study is carried out on 12 different locations in Uzundere, the 11th Cittaslow city in Turkey. The aim of the study is to evaluate the use of geopark resources for the development of sustainable tourism. Geotourism potential of the area is determined by SWOT (strengths-weaknesses-opportunities-threats) analysis with a focus group within the scope of the study. In addition to the SWOT analysis, the TOWS matrix is established and some basic strategies are included for sustainable tourism development. Moreover, geotourism and special interest routes are recommended for 12 locations containing various geopark resource values.

Keywords Development · Geopark · Planning · Sustainability · Tourism

1 Introduction

Geoparks are areas larger than pedestrian distance, where the same or different types of geosites exist together, developed with a holistic concept of protection, education and local development, and including also other natural and cultural resources (Dowling and Newsome 2006; Azman et al. 2010; Kazancı 2010; Newsome et al. 2012; Çiftçi and Güngör 2016; Kocan and Yucesoy 2016; Warowna et al. 2016). The realization of education,

✉ Mustafa Özgeriş
m.ozgeris@atauni.edu.tr

Faris Karahan
fkarahan@atauni.edu.tr

¹ Landscape and Ornamental Plants Programme, Tortum Vocational College, Ataturk University, 25430 Tortum, Erzurum, Turkey

² Landscape Architecture Department, Architecture and Design Faculty, Ataturk University, 25240 Yakutiye, Erzurum, Turkey

protection and development, the three main pillars of geoparks, is strongly based on the participation of local community to these processes. Because the geoparks include the importance of the local community, its culture and its relationship with its lands in the processes of planning and decision making by accepting them. Moreover, it develops educational activities in order to raise awareness of people of all ages about geological, biological, natural and tangible and intangible cultural heritage (UNESCO 2020).

One of the fundamental values creating a geopark is geosites which are the geological structures formed as the result of geological incidents, internal and external forces (Huang and Geogr 2010; Ólafsdóttir and Dowling 2014; Wang et al. 2015). Landforms, rocks, soil, minerals and fossils can be examples of these geological formations (Wimbledon 1996; Gray 2008; Dowling 2011). ProGEO Group geosites are classified as follows; 1-Stratigraphic, 2-Environmental, 3-Volcanic-metamorphic-sedimentary petrology, textures and structures, events and provenances, 4-Mineralogical, economic, 5-Structural, 6-Geomorphological structures, wear-storage processes, landforms and terrain views, 7-Meteoritic events, 8-Continental and ocean-scale events, plate relations, 9-Submarine, 10-Historical and cultural geosites (ProGEO 1998). Although this classification is not a detailed categorization, it provides a general framework based on the main groups (Brilha et al. 2005; Çiftçi and Güngör 2016).

Geosites have formed at any point within 4.6 billion years' past of the earth. They are called as geological heritage according to their rarely existence status (Ting and Xun 2004; Çiftçi and Güngör 2016). Geosites provide information regarding the geological past of the region they are involved in and allow to make estimations for the future (Newsome et al. 2012). Their destruction also means that significant evidence of geological past will be destroyed. Just even this case obliges both the protection of geosites, one of the major resource values of geoparks, and transfer to the next generations.

In addition to geosites, other resource values forming a geopark are biological diversity elements (Joyce 2010; Lazzari and Aloia 2014; Brilha 2016; Çiftçi and Güngör 2016). Based on this fact, it can be noted that geoparks are areas, where nature is considered as a whole with its living and non-living things and human-nature relationship can be established. All these elements forming geoparks make these areas outdoor museums offering educational and scientific opportunities. In addition, tourism concept also comes to the forefront with visitors coming to see, introduce, understand and make a research about the resources in geoparks. Economic benefit is achieved in geoparks, by generating employment opportunities for local communities with the development of tourism (Dowling 2011; Yolal 2012). As a matter of fact, local and regional development, one of the main targets of geoparks are mostly realized with tourism (Farsani et al. 2011; Wójtowicz et al. 2011; Koçan 2012).

Tourism based on geopark resource values is called geotourism which is a sustainable type of tourism involving various nature sports, scientific arrangements and educational activities having an audience consisting of high-income level tourist groups, supporting environmental and cultural protection (Tongkul 2006; Dowling 2013; Çiftçi and Güngör 2016). Geotourism contributes to the elimination of poverty by generating employment opportunities and income-generating business lines for local communities (Reimold et al. 2006). In addition, geotourism also aims the local and regional development by encouraging local community participation to the processes of protection, planning and decision making and to organize training events in order to raise awareness about geological heritage. Such kind of tourism creates certainly major opportunities for the geoparks. For this reason, geoparks are included in many networks in order to provide effective maintenance of their resource values and promoting them both at national and international arena. For

example, European Geopark Network (EGN), operating the regional activities of Global Geopark Network, is responsible for the evaluation of the operations and services of its members so as to introduce European Geoparks as a quality landmark in tourism. It has 73 members from 24 European countries (EGN 2019). This figure in Global Geopark Network is stated as 147 members from 41 countries by the year 2019 (UNESCO 2019).

1.1 Cittaslow and concepts of sustainable tourism

Cittaslow was located in Orvieto city of Italy on October 15, 1999 (Yurtseven and Kaya 2011; Karakurt Tosun 2013). Cittaslow is defined as the conservation of the local environment, the use of gastronomical resources and new technologies for the mutual welfare of the cities to be established for a good and quality life (Miele 2008; Şahin and Kutlu 2014; Hatipoğlu 2015). Cittaslow has a membership criteria list consisting of 72 items based on 7 main policies (environment, infrastructure, urban life quality, agriculture, tourism, merchants and craftsmen, hospitality, awareness and education, sharerships and social adaptation policies) (Cittaslow Turkey 2019). The aims of Cittaslow are in compliance with sustainable tourism targets, such as the protection of local environment, culture and natural resources (air, water, soil, geological and morphological structures, flora, fauna and landscapes), promoting environmental training events, providing the participation of local society in planning and decision making processes and giving priority to local welfare (Semmens and Freeman 2012; Hatipoğlu 2015; Park and Kim 2016).

Sustainable tourism concept emerges as an extension of the sustainability concept defined with the report of Brundtland in 1987. The main reason of such emergence is the destruction of natural and cultural resources as a result of unconscious tourism investments and activities. United Nations World Tourism Organization (UNWTO) has defined sustainable tourism as considering current and future economic, social and environmental impacts while discussing the needs of visitors, tourism industry, environment and host communities (WTO 2004; UNEP and WTO 2005). UNWTO defined the main principles of sustainable tourism as follows: 1-Economic boom, 2-Contribution to local welfare, 3-Creation of qualified employment, 4-Social equality, 5-Satisfaction of visitors, 6-Local participation in planning and decision making, 7-Contribution to social welfare, 8-Protection and development of cultural wealth, 9-Protection of physical (visual) integrity, 10-Protection of biological diversity, 11-Efficiently use of resources and 12-Protection of environmental cleanness (UNEP and WTO 2005).

The United Nations set 17 sustainable development goals in September 2015, (Agenda 2030) (UN 2015). Briefly, these objectives focusing on issues such as economy, health, environment, equality, education, energy and climate aim to ensure that all individuals live together in a healthy, peaceful and prosperous manner until 2030. Ar and Çelik Uğuz (2017) highlighted that sustainable tourism should be introduced as a tool in order to achieve sustainable development goals. Sustainable tourism can serve the Agenda 2030 in many ways, including gender equality, conservation of natural-cultural heritage and biodiversity, revitalization of economic growth and the creation of new business opportunities and can also address various problems globally.

The principles of sustainable tourism briefly emphasize three main topics which are socio-cultural, economic and environmental issues. The principles of sustainable tourism and the relevant issues are in consistency with the main principles of geoparks (Farsani et al. 2012; Dowling 2013). For this reason, geoparks are strong sustainable tourism

models in terms of preserving resource values, creating socio-economic benefits for local people and ensuring local and regional development.

The aim of this study is to examine the geotourism potential of Cittaslow Uzundere and to evaluate the use of geopark resource values for sustainable tourism development.

2 Material and method

The study was performed in Uzundere, one of the 262 Cittaslow cities around the world. Geopark resource values of Uzundere constituted the main material of the study. Previous studies on this subject were used as additional material. Twelve locations including various geopark resource values in the study area were determined using the data of Karahan and Çakır (2010), Orhan and Karahan (2010), Karahan et al. (2011), Anonymous (2013), Kopar and Çakır (2013) and Karahan et al. (2017) and on-site surveys. Identified locations were presented in tables with their characteristics and additional descriptive information (Herrera et al. 2018; Mero et al. 2018).

Training events on geopark, geotourism and sustainable tourism were held with local people, and focus group study was carried out with experts from different professions, local people, NGOs (non-governmental organization) and local government representatives. Based on the focus group study, SWOT (strengths–weaknesses–opportunities–threats) analysis was performed for the study area and its geotourism potential was determined. The TOWS matrix was formed in addition to the SWOT analysis. The internal (strengths–weaknesses) and external (opportunities–threats) results of the study area were transformed into strategies for sustainable tourism development with the TOWS matrix. The method of the study was qualitative research method frequently used in strategic analysis and planning studies (Al-Araki 2013; Antić and Tomić 2017; Herrera et al. 2018; Mero et al. 2018; Çelik Ateş and Ateş 2019; Kubalíková 2019). Finally, some tourism activities and route recommendations were made as part of the identified strategies, for 12 locations including various geopark resource values. Autocad 2013 and Photoshop CS5 programs were used for route planning.

3 Results and discussion

3.1 The analysis on Uzundere's natural and cultural geopark resource values

Uzundere is one of 262 Cittaslow cities around the world, and 17 Cittaslow cities in Turkey. Uzundere is located in the Eastern Anatolian Region of Turkey within the boundaries of Erzurum and is between 40° 42'–40° 26' northern latitudes and 41°26'–41°47' eastern longitudes (Fig. 1) (Karahan et al. 2011). The population of Uzundere with the surface area of 840 km² is 8744. 3050 of the population is urban and 5694 is rural population.

Uzundere is geographically located in Tortum Stream Valley, one of the valleys forming Coruh Basin. Coruh basin forms the western part of Caucasia Ecological Region, announced by International Union for Conservation of Nature (IUCN) as one of 200 important ecological regions and 34 hot points through its biological diversity (CEPF 2003).

The climate of Uzundere reveals a transition between intense continental climate and temperate Blacksea climate, and its climate has a micro-climate characteristic due to its geomorphological structure.

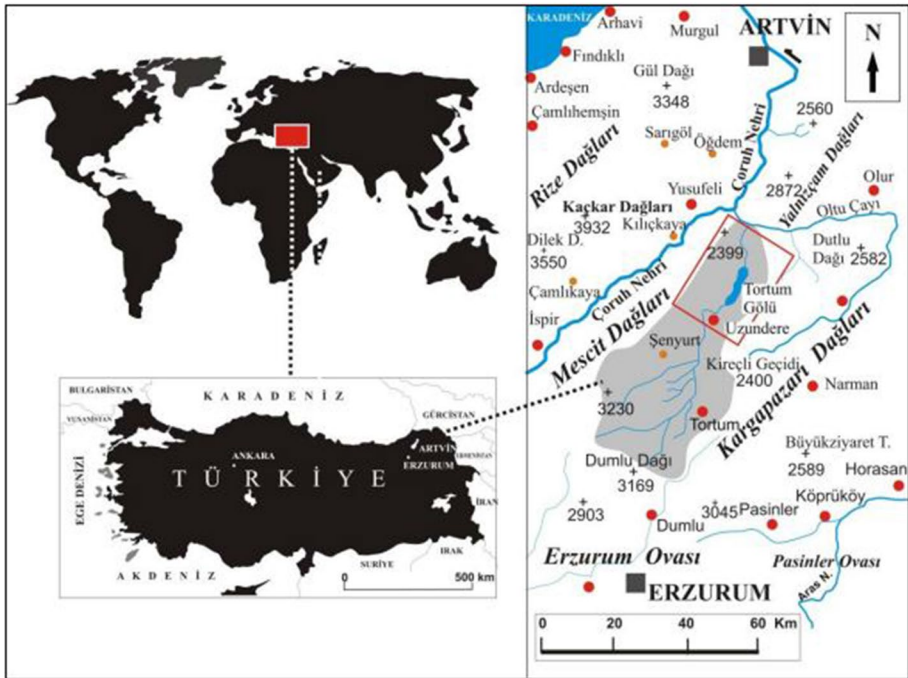


Fig. 1 Study area

41 woody plant species belonging to 22 families, and 286 herbaceous plant species belonging to 48 families are available in Uzundere having a rich biological diversity, and 44 of those are endemic plants (Anonymous 2013). Moreover, more than 200.000 birds of prey migrate over Coruh River every year, and they stop over on Tortum Lake at Uzundere. The number of stationary living bird species in Uzundere is 207. Another fauna wealth of the district is butterflies, and 138 butterfly species belonging to five different families are available in the area. Furthermore, Grizzly Bear (*Ursus arctos*), Chamois (*Rupicapra rupicapra*), Mountain Goat (*Capra aegagrus*), Wolf (*Canis lupus*), Wild Cat (*Felis silvestris*) and Lynx (*Lynx lynx*) are remarkable mammals seen in the region in terms of their population (Karahana et al. 2017).

During thick and deposited residue layer, Uzundere was geologically squeezed and rose. It was subjected to curling and breaking movements, and accordingly, it has a curved structure (Atalay 1979; Kopar and Sevindi 2013). This area was split with streams and taken its shape seen today (Fig. 2).

There are formations and various rocks from different geological periods in the study area (Fig. 3) (Akdeniz and Güven 2002; MTA 2019). Kopar and Çakır (2013) defined 74 main resources including geological, geomorphological, hydrographical and edaphic and stated that this figure would increase upon detailed examination.

Tectonic, volcanic and fluvial morphogenetic agents and processes have been effective on Uzundere's geomorphological structure which was formed of narrow and deep valley floors and hills (Kopar and Çakır 2013). Uzundere is surrounded with mountains with the height up to 2500 meters. Landslides and landfalls affecting a very large



Fig. 2 Folded structures of Uzundere Valley

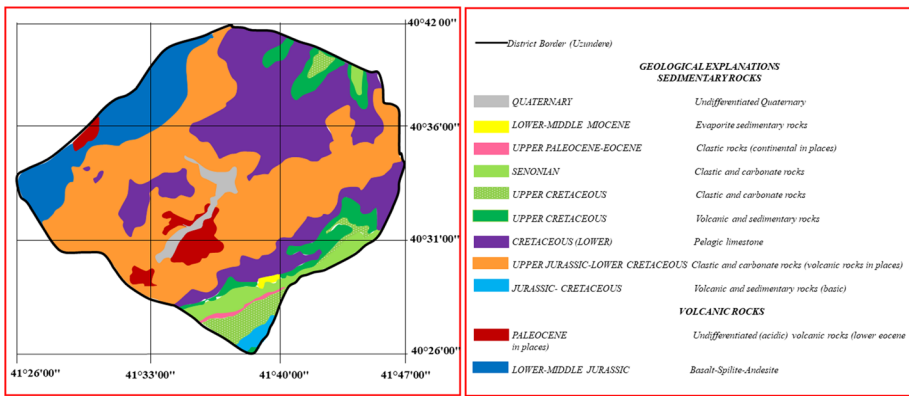


Fig. 3 Geological map of the study area

area are seen in the district. The geomorphology map of Uzundere is compiled from Demircioğlu Yıldız (2006) and presented in Fig. 4.

Although Uzundere has hosted many civilizations such as Hittites, Scythians, Sakas, Persians, Eastern Romans and Georgians in the past, only a few medieval castles, churches and monasteries have survived until today (Anonymous 2019). Moreover, original architecture formed by the effect of climate, geomorphology and local culture is also seen, and there are many traditionally performed culture and sports festivals in the area.

Uzundere geopark has a rich list of resource values. Some scientific studies were conducted previously about the richness and geopark potential of the area studied. In addition, strategic planning activities such as nature tourism master plan and biodiversity action plan were carried out. In this study, 12 locations were determined by referring to previous studies and field observations. These locations are presented in Table 1 with their characteristics and additional descriptive information.

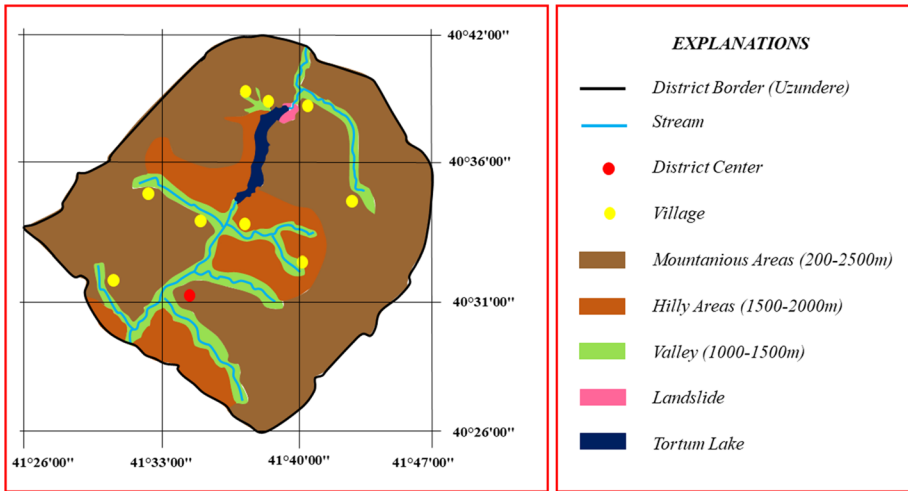


Fig. 4 Geomorphology map of the study area

3.2 SWOT analysis and TOWS matrix

Many methods can be used for geotourism assessment such as surveys, expert group assessment, mapping, comparison with successful destinations and assessment by defined categories, and many of these are qualitative (Çelik Ateş and Ateş). In this study, a qualitative method, SWOT analysis, was used. The study area was analyzed in terms of sustainable tourism in relation to geopark resource values. SWOT analysis was conducted with a focus group and Uzundere's geotourism potential was determined (Table 2).

Uzundere is rich in geopark resource values containing geological, geomorphological, historical, cultural and biological diversity elements. The data in Table 1 also support this conclusion. Furthermore, it has a convenient location, nature, impressive landscapes and areas suitable for nature and outdoor sports. This structure creates a potential for various tourism activities, scientific research and educational activities. Assessing this potential is an opportunity for sustainable tourism as a means of local development. Previous studies and experiences provide evidence of this. This is because geopark tourism based on resource values (geotourism) protects the environment, aesthetics and heritage of a place while improving the social and economic situation of the local people (Lazzari and Aloia 2014).

Geotourism is effective in improving the economic situation of the local people by supporting the ongoing economic activities and creating new jobs by encouraging the production of local agricultural, gastronomic and handicraft products (Farsani et al. 2011). Agricultural production, gastronomy and products based on women labor occupy a large part in the ongoing economic activities of Uzundere. The development of geotourism in Uzundere will provide economic benefits for local people.

In addition, Uzundere is a member of the Cittaslow union. Cittaslow's sustainable approach, which aims to preserve the local environment, culture and natural resources (air, water, soil, geological and geomorphological structure, flora, fauna and landscapes), support environmental education and prioritize local welfare, is also compatible with geotourism. Cittaslow's philosophy and geotourism can create a good

Table 1 Locations evaluated within the scope of the study

| No. | Locations | Characteristic | Additional informations |
|-----|----------------------|--|---|
| L1 | Dikyar Village | Local Culture, Biological Diversity | Traditional Uzundere Houses, Gastronomy, Local Agricultural Products, Flora-Fauna |
| L2 | Tortum Stream Valley | Sedimentary Rocks, Epigenic Valley, Stream | Curved Structure Patterns (symmetrical, asymmetrical, isoclinal, flat, conical or irregular) |
| L3 | Derekapı Location | Volcanic Rocks, Historical Buildings | Engüzekkapı Castle |
| L4 | Uzundere | Local Culture, Biological Diversity | Traditional Uzundere Houses, Uzundere Gastronomy Festival, Uzundere Traditional Karakucak Wrestles, Local Agricultural Products, Handicraft Products, Flora-Fauna |
| L5 | Sapaca Village | Local Culture, Biological Diversity, Historical Buildings | Traditional Uzundere Houses, Gastronomy, Local Agricultural Products, Sapaca Castle, Puşulu High Land Festival, Flora-Fauna |
| L6 | Çamlıyamaç Village | Historical Buildings, Biological Diversity | Öşvank Monastery, Traditional Uzundere Houses, Flora-Fauna |
| L7 | Tortum Lake | Lake, Mountain, Sedimentary Rocks, Drowned Bays and Slopes | Delta Formation, Peninsula, Fairy Chimneys, Badlans Surfaces, Landscape |
| L8 | Balıklı Village | Mountain, Sedimentary Rocks | Badlans Surfaces, Landscape |
| L9 | Cevizli Village | Mountain, Sedimentary Rocks, Seasonal Waterfall | Badlans Surfaces, Landscape |
| L10 | Tortum Waterfall | Mountain, Waterfall, Stream | Landscape, Pelagic Limestone |
| L11 | Yedigöller Lake | Lake, Mountain, Sedimentary Rocks | Landscape |
| L12 | Uzundere Canyon | Canyon, Stream, Folded structures | Curved Structure Patterns (symmetrical, asymmetrical, isoclinal, flat, conical or irregular) |

Table 2 SWOT analysis for the study area

| Strengths | Weaknesses |
|---|---|
| <ol style="list-style-type: none"> 1. Rich geological and biological diversity 2. Historical buildings and civil architecture examples 3. Impressive landscapes and unspoiled environment 4. Diverse agricultural and gastronomic products and handicraft products based on women's labor 5. Convenient location and access by road 6. Hospitable local people interested in tourism 7. Strong coordination among local stakeholders 8. Membership in the Cittaslow Union, and local government's commitment to environmental protection 9. Areas suitable for nature-based sports such as adventure and water | <ol style="list-style-type: none"> 1. Economic problems of local people 2. Non-preservation and deterioration of historical buildings and civil architecture examples 3. Bad image as a result of erosion in the region filling Tortum Lake with sediment and deforestation 4. Inadequacy of conservation activities related to endangered plant species 5. Inadequacy of tourism activities and routes 6. Inadequacy of basic visitor facilities (such as washbasins, buffets, disabled access roads) and education-research infrastructure in geotourism locations 7. Inadequate tourism promotion and number of visitors 8. Lack of knowledge of the local community about Geosite, Geopark and environmental protection 9. Poor destination management |
| Opportunities | Threats |
| <ol style="list-style-type: none"> a. Uzundere Valley entering the UNESCO World Natural Heritage Turkey provisional list b. Political ownership of tourism emphasized in regional development plans and investments for tourism c. Positive approach and financing of the state for the conservation and restoration of historical and cultural structures and the protection of biological diversity d. National and regional funding sources providing loans and grants to local entrepreneurs in the tourism sector and positive discrimination for women entrepreneurs e. Presence of lifelong learning programs and vocational training courses f. Existence of regional afforestation, greenhouse, energy and home boarding supports implemented by the Japanese Cooperation Development Agency g. The interest of the universities in the region to Uzundere and the existence of student clubs related to nature and outdoor sports h. Presence of winter tourism centers in the vicinity and a large number of domestic and foreign tourists visiting the region every year i. Presence of non-governmental organizations in Erzurum city center engaging in nature sports and search and rescue activities | <ol style="list-style-type: none"> a. Destinations in the vicinity attracting more attention in terms of tourism b. Decreasing water resources as a result of global warming c. National lack of awareness about geoparks and geotourism d. Unplanned approach of regional actors that ignore the long-term negative effects of tourism investments e. Negative environmental effects of tourism |

sustainable tourism synergy for Uzundere. This synergy can integrate geological and biological diversity, historical structures, civil architecture, local culture, agricultural and gastronomic products with education, research and nature-based sports and develop sustainable tourism and contribute significantly to local and regional development.

With this study, the TOWS matrix was created as a complement to the SWOT analysis which determines Uzundere's geotourism potential. The TOWS matrix is a variation of SWOT analysis and includes the same basic steps. However, the TOWS matrix allows for the development of strategies based on SWOT analysis (Antić and Tomic 2017; Herrera et al. 2018; Mero et al. 2018). With the TOWS matrix, the findings of SWOT analysis for Uzundere were transformed into strategies for sustainable tourism development (Table 3). The TOWS matrix combines the strengths and weaknesses (numbered 1 to 9) with opportunities (numbered a. to i.) and threats (numbered a. to e.) listed in the SWOT analysis.

In summary, the TOWS matrix demonstrates that Uzundere's potential for geotourism can be further enhanced through strategies focused on local communities, visitors, the environment and destination management. It also provides information about the importance of biodiversity, historical structures, local culture and civil architecture for geotourism (Gray

Table 3 TOWS matrix based on SWOT analysis

| Strategies: (Strengths–opportunities) | Strategies: (Weaknesses–opportunities) |
|---|--|
| <p>1.a.g. Conducting scientific studies for Uzundere Geopark Project in cooperation with regional universities</p> <p>4.d. Establishment of small enterprises and sales units that will be promoted within the scope of geotourism to support agricultural, gastronomic and women labor-based products through financing programs.</p> <p>1.2.3.4.5.h. Organizing daily geotours to Uzundere during the winter season by developing cooperation with hotels and tour companies in the nearby winter tourism centers</p> <p>6.e. Organizing vocational training activities such as guidance, running hostels for the human resource that tourism needs.</p> <p>7.a.b.c.e. Managing the processes of decision making and regional planning including the components of protection, education and tourism with the participation of local community and a strong coordination of stakeholder.</p> <p>9.g.i. Developing collaborations including training and sports organizations and attracting nature sports and search and rescue organizations to the region</p> | <p>1.b. Employment of local people in tourism investments</p> <p>2.b.c.f. Restoration and preservation of historical buildings and civil architecture examples and utilization of civil architecture examples within the scope of boarding houses</p> <p>3.f. Conducting afforestation works in erosion zones</p> <p>4.c. Establishment of an Arboretum containing endangered plant species</p> <p>5.b.g.i. Development of nature-based tourism activities and determination of routes in cooperation with relevant organizations</p> <p>6.b. Establishment of basic visitor facilities and education–research infrastructure in tourism locations through public investments</p> <p>7.g.h.i. Implementation of promotional activities at regional level to increase the number of visitors (Promotional videos, Web site, collaborations etc.)</p> <p>8.e. Organizing training activities to raise awareness for people of all ages about geological, biological, natural and tangible and intangible cultural heritage.</p> <p>9.a.b. Establishing a destination management office for sustainable tourism with the synergy between geotourism and cittaslow</p> |
| Strategies: (Strengths–Threats) | Strategies: (Weaknesses–Threats) |
| <p>1.8.a. Destination marketing highlighting the unspoiled environment, geotourism and cittaslow brand</p> <p>8.b.d.e. Developing a destination management approach in accordance with Cittaslow philosophy and environmental criteria</p> | <p>7.a. Geotourism activities and promotion of cittaslow brand in tourism promotion in order to compete with nearby destinations</p> <p>8.b.c. To raise awareness on natural resources and global environmental issues by organizing environmental trainings for local people and visitors within the scope of geotourism activities</p> <p>9.d.e. Establishing a destination management plan with broad participation of local stakeholders and establishing a monitoring and evaluation system for environmental protection</p> |

2004; Lazzari 2013; Lazzari and Aloia 2014; Mero et al. 2018). Another remarkable point in the TOWS matrix is that it points to a Uzundere Geopark supported by scientific studies.

3.3 Route recommendations for geopark resource values

Based on the data of the locations identified in Table 1 and some of the strategies in the TOWS matrix, we recommend the development of routes including various tourism activities for geopark resource values in Uzundere (Fig. 5). The activities we recommend for these routes are: 1-Scientific research-trainings, 2-Water sports (Rafting Canoe-rowing-sailing), 3-Climbing sports (Rock-ice-mountain), 4-Adventure sports (paragliding-bungee jumping-wing suit), 5-Flora-fauna-bird-butterfly watching, 6-Culture trips, 7-Cycling, 8-Hiking, 9-Enjoying sceneries and landscapes, 10-Photography, 11-Camping, 12-Picnic, 13-Gastronomy.

- *Geotour Route*: This route uses first- and second-degree highways and is suitable for motor vehicle transportation. The route integrates geologically diverse areas with historical structures, biodiversity and local culture. Environmental awareness trainings are organized on the route and the planned tour duration is 2–3 days. 3-day tours include adventure (paragliding, bungee jumping, etc.) activities at points L8 and L9. During the tour, visitors can stay in boarding houses and hostels with original local architecture, taste local gastronomic products and buy souvenir crafts.

In addition to the geotour, we recommend three different special interest routes for single day trips.

- *Route 1*: This route is rich in geodiversity and is suitable for scientific studies. In addition, geosite and other nature trainings are organized for students and people of



Fig. 5 Recommended routes for locations in the study area

all ages. Furthermore, visitors can do water sports (rafting between L2-L7, L10-L12; canoe-rowing-sailing-swimming between L7-L10), cycling, enjoy sceneries and nature photography activities.

- *Route 2*: This route includes examples of civil architecture, festivals, local agricultural, gastronomic and handicraft products and historical structures such as monasteries and fortresses. There are also areas suitable for flora (various endemic plants) and fauna (birds, butterflies and wild animals) observation. In this route, people who want to get to know different cultures and nature lovers can taste local delicacies, see local agricultural and handicraft products, observe the flora-fauna, hike, engage in nature photography, go cycling, camping and have picnics.
- *Route 3*: On this route, there are areas suitable for climbing (mountain-rock-ice) and adventure sports (paragliding-bungee jumping-wing suite). In addition, nature enthusiasts who are keen to explore the geological formations and secrets of nature along the route can go hiking, camping and engage in nature photography.

The proposed routes incorporate geopark resource values into tourism through education, research and various activities. They also integrate them with a variety of products based on local culture, agriculture, gastronomy and women's labor. While Uzundere's current tourism activities cater to general visitors, geotourism can accommodate visitors from different segments such as scientists, students, nature lovers and adventurers. However, when using geopark resource values, plans supported by conservation activities should be made. Hieu et al. (2018) state that conservation activities should be considered as an integral part of development. Such a form of tourism, which incorporates existing economic activities into tourism, creates economic benefits for the local population, appreciates and uses women's labor and considers the balance of conservation while using natural and cultural resources is also a good way to achieve sustainable development goals.

4 Conclusion

This study was conducted in Uzundere, 11th Cittaslow city in Turkey. The focus of the study is to evaluate the use of geopark resource values for sustainable tourism development. SWOT analysis of the area was performed with a focus group study. TOWS matrix was created as a complement to the SWOT analysis. The method used is a universal method that can be applied elsewhere.

The results of the study show that Uzundere is rich in geopark resource values. Geopark resource values are areas suitable for education, research, scientific studies and various tourism activities based on nature (water sports, adventure sports, trekking, etc.) and can be utilized through tourism development. However, this tourism development should encourage ongoing economic activities (such as agriculture, gastronomy, handicraft products) and create economic benefits for the local population. In addition, trainings can be organized in these areas for people of all ages to raise awareness for geopark resource values and other environmental issues. While providing benefits to the local environment and culture, these educational activities can also create awareness about environmental problems on a global scale.

In conclusion, sustainable tourism development can be achieved by integrating geological and biological diversity, historical structures, civil architecture, local culture,

agricultural and gastronomic products with education, research and nature-based sports and supporting them with conservation activities.

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