

Article

Evaluation of Sustainable Development of Tourism in Selected Cities in Turkey and Poland

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Abstract: The paper analyses the sustainable development of tourism in selected cities located in Turkey and in Poland. The starting point for the conducted research was the adoption of indicators used to assess the sustainable development of tourism in the cities of Amasya (Turkey) and Zakopane (Poland). Ultimately, the authors used slightly modified indicators developed by the Voluntary Initiative for Sustainability in Tourism (VISIT). The studies demonstrated that in Amasya the development of tourism is quite stable and revealed quite a lot of deficiencies in Zakopane. Sustainable development was assessed as poor in terms of environmental obligations, in particular waste water management solutions and municipal waste management as well as in terms of water consumption. The research revealed that some of the indicators were not recorded in central statistical offices, which hindered the assessment considerably. This refers mainly to indicators related to social and cultural considerations. In general, the results are rather surprising, as the analysis revealed significant differences in the development of technological infrastructure and land use intensity. Unfortunately, in these aspects, Zakopane seems to have lost the competition.

Keywords: sustainable development of tourism; environmental consideration; Voluntary Initiative for Sustainability in Tourism (VISIT); Amasya; Zakopane

1. Introduction

The concept of sustainable tourism has its roots in the notion of responsible tourism formulated by Hetzer in 1965, which was based on the pillars of: minimal intervention in the natural environment, respecting cultural differences, maximum participation of local communities in providing tourist services, and increased satisfaction of tourists. According to [1,2] tourism should be developed by the local community in a slow, controlled way, at the same time maintaining a low scale of the phenomenon.

According to Mihalic [3], the tourism sustainability debate, e.g., the debate regarding use of the term sustainability, following the “Our Common Future” legacy began in the early 1990s with Inskeep, who defined five main criteria for sustainable tourism, which addressed the economic, environmental and social responsibility of tourism as well as its responsibility towards tourists (visitor satisfaction) and global justice and equity [4].

The realisation of sustainable development principles in areas of tourist reception is currently becoming particularly important, not only due to the constant, strong dependence of tourism development on the natural environmental resources, or the increasing pressure on sustainable development (both in global and

local terms), but first of all, due to the emerging new trends in touristic demand [5,6]. The trend towards sustainability has been studied and accepted by many researchers [7–10].

Another issue that requires explanation is the notion of sustainable tourism. Although it is commonly used in literature, the term “sustainable tourism” still requires a precise definition. According to numerous authors [1,11] although the notion of “sustainable tourism” has been studied for a long time, it still lacks a single, consistent and generally adopted definition. Literature usually focuses on the importance of three elements of sustainable tourism, which are: the environment, the society and the economy [12].

Tourism sustainability indicators are a set of well-established frameworks based on multi-dimensional conceptualizations of sustainability [13]. The general principles of environmentally friendly tourism were formulated in co-operation with World Travel and Tourism Council, the World Travel Organization, and the Earth Council. These standards were collected in a document entitled *Agenda 21 for the Travel and Tourism Industry* [14]. The guidelines contained in the Agenda initiated the sustainable tourism theory. These principles should be implemented on all levels of planning, launching and operating a tourist enterprise.

Creating a system of sustainable development indicators is not an easy task. The key issue has to do with maintaining balance between the need to represent a wide spectrum of phenomena related to durability and the need for the indicators to remain simple and easy to adapt [15].

In 2006, the Statistical Office of the European Union—Eurostat—developed a Manual on Sustainable development indicators of tourism where a set of 20 core indicators for sustainable tourism [16]. At the same time, the European Environment Agency (EEA) acknowledged that “despite the difficulties of quantifying the real impact of tourism on the environment, any increase in the number of tourists undoubtedly has an impact on environmental variables such as waste generation and energy consumption (in terms of volume and local level)” [17]. What is more, the choice of variables and measurement criteria depends on the definition of durability, which is hard to generalise. Durability is used for normative aspects, values, quality of life, and questions regarding the meaning of life. Thus, one has to attempt at leaving conventional indicators behind, accepting semi-quantitative or even qualitative indicators instead [15,18–20].

Most researchers investigated the perceived impact of economic, environmental, social, and cultural benefits or costs [21,22]. According to Zhu, it is generally accepted that tourism has the potential for both desirable and undesirable impacts on the local community [23].

When attempting an analysis of sustainable tourism indicators, one should bear in mind that the ideal sustainable development indicator in the tourist industry should, first of all [1]:

- be easy to identify and measure,
- be significant for the functioning of the ecosystem,
- have a high cultural, socio-political or economic value,
- be sensitive to the measured changes and describe understandable mechanisms,
- respond to changes quickly and be unambiguous.

The cities of Amasya (Turkey) and Zakopane (Poland) were chosen as the study area. Both the city of Amasya and Zakopane is a tourism city because of its natural historical cultural values. Every year many tourists come to visit these cities. Because of this feature, the two cities are similar. The types of tourism in the cities and the touristic activities and the urban population show the differences between the two cities. The aim of this study is to evaluate the sustainable development of tourism in selected cities in Turkey and in Poland and to demonstrate, in this context, the specificity of the functioning of tourism in these two countries that differ in so many aspects. The authors also focused on evaluating the availability of data required to perform the assessment. The results were validated basing on the adopted indicators. In the method of study, it was made specific for the study by using the indicators determined by Voluntary Initiative for Sustainability in Tourism (VISIT). The authors of the paper have already studied the issue of ecosystem services and sustainable development in the spatial policy of communes located in Poland, in the vicinity of Wrocław [15,24] and functional transformations of rural areas in Lower Silesia

voivode-ship [25]. Furthermore, research was conducted in the past regarding the sustainable development of communes located in environmentally and culturally valuable areas in the Podhale region (Poland) [24]. In Turkey, research on the determination of Greenway routes using network [26], greenway planning process and nature tourism was conducted in the vicinity of the area analysed herein [27,28].

2. Materials and Methods

The indicators used to monitor sustainable development of tourism include those published by WTO in 2004, in the study entitled: Indicators of sustainable development in tourism destination. These indicators were modified in 2005. As a result, UNWTO published a new list of indicators that should be used to monitor sustainable tourism. It is worth noting that the indicators recommended by WTO may be divided into two main categories:

- (1) Basic indicators that may be used to all tourist destinations and
- (2) Specific (supplementary) indicators used only in specific types of areas.

The specific indicators have been divided into the following categories:

- Indicators that are specific for all ecosystems used for each type of ecosystem, e.g., wetlands, beaches, mountainous areas, cities, islands, etc.
- Indicators that are specific for each given locations they should be determined for each destination on an individual basis.

Certain difficulties emerged during the evaluation of measures, e.g., local satisfaction with tourism—the level of local satisfaction with tourism, based on survey results, influence of tourism on the local community percentage of local residents who are convinced that tourism supports the development of services and infrastructure (based on survey results), permanent tourist satisfaction—the level of satisfaction of visitors (based on survey results) and the perception of the value to cost ratio (also based on survey results).

After a critical analysis of the possibility to use the indicators used by the WTO for the evaluation of sustainable development of tourism in selected cities, the Authors searched for a different set of indicators that would be reliable and available in databases [29].

Some authors [30–32] have developed various sets of sustainability indicators. Indicator selection can be summarized in two main approaches: the scientific approach focused on integrating a large set of indicators to maximize precision [33,34] and the approach favoured by decision-makers, in which data are condensed to synthetic indicators intended to support political decisions and are simplified for public dissemination [19,35,36].

Another set of indicators similar to the one recommended by WTO was developed for the purposes of European tourism [37]. The VISIT set of indicators is significantly more elaborate.

The method of study follows the following steps (see Figure 1). A, B, C, D as indicated in step 3 in Figure 1, refer to the evaluation indicators indicated in Table 1. In other words, the indicators determined by VISIT have been adapted to the study and customized.

These indicators were used to evaluate the sustainable development of tourism in selected cities in Turkey and Poland. For the purposes of the study, the indicators were modified in order to adjust them to the reality of the selected cities—Amasya in Turkey and Zakopane in Poland. The adopted indicators are presented in Table 1. Some of them were omitted due to the unavailability of data or to the absence of such phenomenon in the analysed locations. As both the city of Amasya and Zakopane are not a coastal city, the omitted indicators in the study are as follows: Indicator “Number of sites monitored with Blue-Flag-system and total number of bathing sites (if applicable)” under A-Political Implementation of Sustainability Concepts. Indicator “Share of environmentally-friendly modes of transport in all arrivals” under B.1-Tourism Transport. Indicator “Percentage of natural coastline (if applicable)” under B.2-Carrying Capacity. Indicator “Share of tourism in overall destination GDP” under D-Economic Performance Indicators.

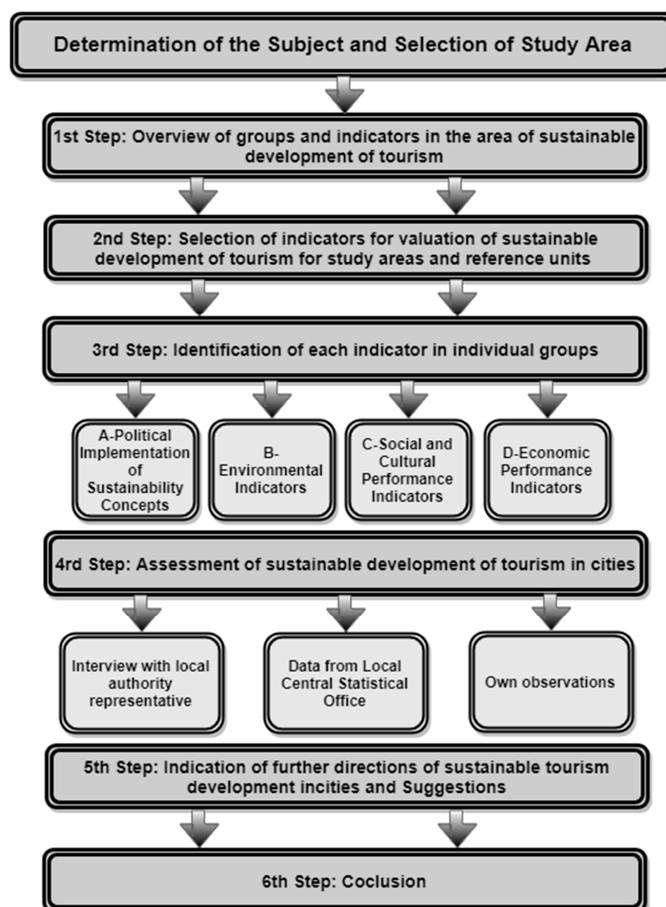


Figure 1. The steps of the sustainable tourism development valuation.

Table 1. Indicators used to evaluate the sustainable development of tourism in the cities Amasya and Zakopane.

Item	Indicator Name	Unit	Data Sources	
			Turkey	Poland
A Political implementation of sustainability concepts				
A-1	Existence of a local policy for enhancing sustainability in the destination: Existence of a political strategy decision or an action plan	Yes/No	Interview with local authority representative	Interview with local authority representative
A-2	Involvement of stakeholders: Are there stakeholders continuously involved in designing, revising and monitoring the sustainability strategy	Yes/No	Interview with local authority representative	Interview with local authority representative
A-3	Existence of an inventory of sites of cultural interest: e.g., monuments, buildings, UNESCO heritage sites	Yes/No	Tourist information	Tourist information
A-4	Existence of an inventory of sites of natural interest: e.g., protected areas, habitats, especially vulnerable areas, Natura 2000	Yes/No	Tourist information	Tourist information
A-5	Number of eco-labelled tourism facilities or facilities applying for environmental management schemes (such as EMAS or ISO 14000): Including hotels, restaurants, camping sites or other tourism services	Pcs.	Tourist information	Tourist information
B Environmental Indicators				
B1 Tourism transport (access to destination and return travel, local mobility)				
B1-1	Daily number of guests per 1 km ²	no. of tourists per 1 km ²	Own observations	Tourist information, GUS-BDL
B1-2	Local mobility: types of means of transport	Pcs.	Own observations	Own observations

Table 1. Cont.

Item	Indicator Name	Unit	Data Sources	
			Turkey	Poland
B2 Carrying capacity—land use, bio-diversity, tourism activities				
B2-1	Maximum population density (peak season) per km ²	per 1 km ²	TUIK	GUS—BDL and own observations
B2-2	Beds in secondary residences (in % of total lodging capacity)	%	TUIK	GUS—BDL and own observations
B2-3	Ratio of built-up area to natural areas	1:1	TUIK	GUS—BDL
B2-4	Size of protected natural areas (in % of total destination area)	%	TUIK	GUS—BDL
B2-5	Evolution of different leisure time activities with intensive use of resources: Evolution of different leisure time activities with intensive use of resources: <ul style="list-style-type: none"> • Number of snow canons, • Area covered with artificial snow, • Capacity of lifts, cable cars and similar transport facilities 	Pcs. km ²	own observations	own observations
B.3 Use of energy				
B3-1	Percentage of renewable energy in total energy consumption (entire destination, locally produced or imported): Ratio of energy consumption per year covered by renewable resources.	1:1	Policy of local authorities and TUIK	Policy of local authorities
B3-2	Energy use by type of tourism facility	MW	Policy of local authorities	Policy of local authorities
B.4 Use of water				
B4-1	Sustainable use of water resource	Ratio of water imported (pipelines, ships etc.)	TUIK	GUS—BDL
B4-2	Percentage of houses and facilities connected to waste water treatment plants	%	TUIK	GUS-BDL
B.5 Solid waste management				
B5-1	Percentage of solid waste separated for recycling	%	TUIK	GUS-BDL
B5-2	Total of solid waste land-filled and/or incinerated	Tons/year	TUIK	GUS-BDL
B5-3	Monthly table of waste production	Tons/month	TUIK	GUS-BDL
C. Social and cultural performance indicators				
C-1	Percentage of non-resident employees in total number of tourism employees: seasonal percentage of non-resident employees in total number of tourism employees	%	TUIK and Tourist information	GUS-BDL
C-2	Average length of contracts of tourism personnel: average length of contracts of tourism personnel	Months	Own observation	Own observations
C-3	Percentage of land owned by non-residents	%	Own observation	Own observations
C-4	Number of recorded thefts	No.	TUIK	GUS-BDL
C-5	Tourist/host population ratio	1:1	TUIK and Tourist information	Own observations, GUS-BDL
D. Economic performance indicators				
D-1	Seasonal variation of tourism-related employment	1:1	own observation	own observations
D-2	Seasonal variation of occupation of the accommodation (beds)	1:1	own observations and Tourist information	Own observations
D-3	Volume of accommodation (beds) per 1 resident	Number of beds (reported/number of residents)	own observations and TUIK	Own observations, GUS-BDL
D-4	Average duration of stay	Days	Own observations	Own observations

TUIK—Central Statistical Office of Turkey; Turkish Statistical Institute (TUIK); GUS-BDL—Central Statistical Office of Poland; Local Data Bank (GUS) [29]. Source: own study based on The VISIT (Voluntary Initiative for Sustainability in Tourism) initiative. Tourism eco-labelling in Europe—moving the market towards sustainability 2004. The indicators used in Table 1 are the indicators that Voluntary Initiative for Sustainability in Tourism (VISIT) has determined for sustainable tourism and the ones that are suitable for this study have been selected and made original.

During the study, own observations were conducted at regular intervals (sometimes every week, sometimes once a month) for 1 year in both cities. The interviews were conducted by local authority representative such as Tourism Provincial Directorate of Culture, Municipality, hotel operators, restaurant operators, domestic and foreign tourist information.

The authors omitted the indicator: Number of sites monitored with Blue-Flag-System and total number of swimming areas (if applicable) and Percentage of natural coastline (if applicable) due to the mountainous nature of the analysed destinations.

In Poland, various indicators that may be used to monitor the sustainable development of tourism are recorded as part of the activities of the Central Statistical Office [38]. The data review demonstrated that information collected in the Local Data Bank might constitute a basis for obtaining information about sustainable tourism development. Unfortunately, still not all indicators that might be helpful in the evaluation of sustainable development of tourism on municipality level are recorded in this database. Thus, own observations and interviews with local authority representatives are still quite often required.

General Characteristic of the Cities

Amasya and Zakopane are two culturally different cities located, respectively, in Turkey and in Poland (see Figure 2).

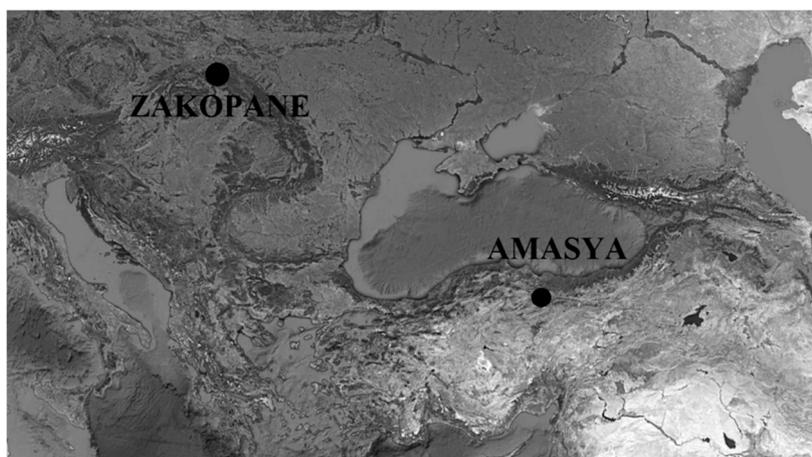


Figure 2. Map showing the locations of Amasya and Zakopane.

Amasya (see Figure 3) is a city in Turkey located in the Middle Black Sea Region, surrounded by Tokat from the east, Tokat and Yozgat from the south, Çorum from the west and Samsun from the north. The total border length of Amasya is 492 km. There are 7 districts in Amasya: Central, Merzifon, Suluova, Taşova, Gümüşhacıköy, Göynücek, and Hamamözü. Amasya has a surface area of 5701 km², including: 44.7% agricultural land, 35.8% forested land, 11.6% meadow land, 7.9% wetlands.

Amasya city has a rich culinary culture, legends, natural and cultural values, where traditional Ottoman houses are located along Yeşilirmak River and Valley. The city is known as one of the oldest settlements in Anatolia. Amasya province with 7500 years of history has been the scene of Hittite, Phrygian, Kimmer, Scythian, Lydia, Persia, Macedonia, Pontus, Roman, Byzantine, Danishmend, Seljuk, Ilkhanid, and Ottoman civilizations from the Chalcolithic Age. The city has been entered in the UNESCO World Heritage Site List since 2015, thanks to the Harşena Mountain in the north of the city and the Pontus King Rock Tombs, which are among the largest rock tombs of Anatolia. In addition, it is one of the 15 brands that the Ministry of Culture and Tourism has identified in Turkey Tourism Strategy 2023 due to its natural beauties, rich cultural heritage, architecture, cuisine and tourist attractions. It is also called as “The City of Shahzadachs” because many sultans were brought up here during the Ottoman period. Due to these cultural values, cultural tourism is mostly carried out in the city. Also,

nature tourism is being done on Borabay Lake. It is a natural set lake with a depth of 80 meters and a depth of 25 meters. Borabay Lake is under protection. The hiking and trekking routes around Borabay Lake are the longest hiking route in Amasya. Amasya city is famous for its thermal water resources.



Figure 3. Amasya—historical buildings of the city. (Source: Authors).

Zakopane (see Figure 4) is the largest city in the direct surrounding of the Tatra in Poland. It is located 800–1000 m a.s.l., in a basin between Gubałówka (1123m) and the Giewont massif (1909 m). The city is a winter sports centre, often informally referred to as the “winter capital of Poland”. The administrative limits of the city also include a large part of the Tatra National Park. It is the highest elevated city in Poland and its area includes part of the Tatra Mountains, with the highest point being the peak of a—2301 m a.s.l. Zakopane has a surface area of 84.35 km², including: 31% arable land, and 57% forested land. The adjacent municipalities are Bukowina Tatrzańska, Kościelisko, Poronin, and the national border with Slovakia.



Figure 4. Zakopane—Krupówki street of the city. (Source: Authors).

Zakopane was founded as a settlement in a place where seasonal shepherds’ villages had been located. The first (unfortunately lost) settlement privilege was granted by the king Stefan Batory in 1578. The founding of the city was formally confirmed in 1670 by the king Michał Korybut Wiśniowiecki. By the end of the 19th century, the city became a cultural centre that was visited by Polish cultural leaders. Currently it is the most famous tourist and leisure resort in Poland, as well as a sports centre and the starting point for hiking trips in the Tatra Mountains. The inhabitants identify with the local culture by cultivating traditions, local cuisine and even certain everyday life habits. The local community has a strong spirit of entrepreneurship and actively uses the rich cultural resources of the Podhale region. The features of the two cities are collated as given in Table 2.

Table 2. Characteristics of the cities with respect to preservation of cultural features.

No.	Selected Historical and Cultural Features	Amasya (Turkey)	Zakopane (Poland)
1	2	3	4
1.	Type of resort	Tourist resort, city	tourist resort, city
2.	Location	At the foot of Harşena Mountains, in Turkey. Tokat from east, Tokat and Yozgat from the south, Çorum from the west and Samsun from the north. 334 km from Ankara, the capital city of Turkey	At the foot of the Tatra, in the Carpathian Mountains, in under the Zakopane Basin, (Kotlina Zakopiańska) 100 km from Cracow, the capital of Little Poland
3.	Name of the region	Middle Black Sea	Podhale
4.	Number of inhabitants (registered for permanent residence)	326,351 (status for Dec 2016)	26,737 (status for Dec. 2016)
5.	Using the lodging (number of registered people) total	93,689	3,200,000
6.	Population background	Local population started to increase in the 14th century when it joined the Ottoman state. Also, the population of the city is composed of Muslims and non-Muslims.	Pastoral nationals from Wallachia, wandering by the arc of the Carpathian Mountains, at the turn of the 14th and 15th century, assimilated with local population; the city also grew because of incoming population from other regions of Poland.
7.	National minorities	None	None
8.	Dialects	Turkish dialect	Podhale dialect
9.	First settlement information	It is the oldest settlement in Anatolia. Settlement started in B.C. 4000. It continued Hittite, Phrygian, Kimmer, Scythian, Lydia, Persian, Hellen, Pontus, Roman, Byzantine, Danishmend, Seljuk, Ilkhanid and Ottoman periods. It was confirmed by Yıldırım Bayezid in 1393. The name Amasya is given by Strabon, who is known as the first geographer of the world.	Settlement privilege granted in 1578 (missing), confirmed by King Michał Wiśniowiecki in 1670.
10.	Settlement origins	16th century; in 1520, a city with 5681 inhabitants (together Muslim and non-Muslims)	16th century; in 1676, a village with 43 inhabitants (together with Olcza and Poronin).
11.	Formed architecture style	Ottoman style	Zakopane style
12.	Beginnings of tourism movement development	Towards the end of the 20th century	Second half of the 19th century
13.	Significant tourist and sport events	-	World championship in classical skiing in years 1929, 1939, 1962.
14.	Cyclic events	International Festival of Atatürk, Culture and Art (12–22 June); series of cultural events: concerts, cherry competition, folk dance show, sport events, photo competition International Traditional Archey Festival (20–22 June); series of cultural events: concerts, sport events Festival of Plateau (18–26 July)	Annual World Cup in ski jumping during Wielka Krokiew (Big Rafter) International Festival of Mountain Folklore; series of cultural events: concerts, festivals, sport events, chess tournaments
15.	Sport and tourist facilities	Visiting museums and historical sites, riding a bicycle/phaeton, trekking and hiking routes, camping, visiting spas, swimming pools, sports facilities	Cable railway—Kasprowy Wierch, numerous chair railways and ski lifts, ski-jumping take-off “Wielka Krokiew”, running tracks, aqua park, other swimming pools, halls and sports grounds, tennis courts
15.	Social participation in city development	High social activity	High social activity
16.	Inhabitants identification with “little homeland”	Significant	Significant, strong attachment to land
17.	Regional products	Amasya apple, Toyga soup, blah, stuffed broad bean, Amasya bun	Podhale sheep cheese “bryndza” and “oscypek”—registered in the European Union as regional products
18.	Return to “roots”	Significant, regional groups, folk bands, traditional handicrafts	Significant, regional groups, folk bands, cultivating traditional folk crafts, painting, sculpture and handicraft.
19.	“Highlander style” of living philosophy	Important, also passed on from generation to generation without distortion	Matters greatly, Polish highlander language also gives a specific sense of freedom. <i>słoboda</i> , <i>hyrność</i> and <i>honorność</i> — <i>transferred from generation to generation</i>
20.	Economic activity of the inhabitants	Medium (686 business entities)	High (over 5100 business entities)

Source: own study.

Table 2 contains characteristics of selected towns and their characteristics in terms of natural, cultural and ethnic attractiveness. Properties that are presented in such a way are easier to compare and more clear for the reader. The table presents the specificity of the given region, so-called “small homeland”. The term “small homeland” may refer to a kind of geographical, social and cultural space, where the individual lives and with which he/she is connected emotionally. In other words, it is the space that is the closest environment; a well-known, safe and “domesticated” area. “Small homeland” is generally used to refer to one’s home town, municipality, or region, but its borders are not clearly defined. They are often not the same as the administrative borders, because they exist in human consciousness and define the space that is native and close to one’s heart.

3. Results

What is important in terms of sustainable development of tourism in both cities is the promotional policy of the local authorities but also a certain degree of preventing excessive expansion of protected areas. Evaluation results related to political implementation of sustainability concepts are collated in Table 3.

Table 3. Evaluation of sustainable development of tourism in Amasya and Zakopane with respect to political implementation of sustainability concepts (A), as of the end of 2016.

Item	Indicator Name	Unit	Data Sources	
			Amasya (Turkey)	Zakopane (Poland)
A	Political implementation of sustainability concepts			
A-1	Existence of a local policy for enhancing sustainability in the destination	Yes/No	Yes	Yes
A-2	Involvement of stakeholders: Are there stakeholders continuously involved in designing, revising, and monitoring the sustainability strategy	Yes/No	Yes/No	Yes/No—dominant representation of local authority members
A-3	Existence of an inventory of sites of cultural interest: e.g., monuments, buildings, UNESCO heritage sites	Yes/No	Yes	Yes
A-4	Existence of an inventory of sites of natural interest: e.g., protected areas, habitats, especially vulnerable areas, Natura 2000	Yes/No	Yes	Yes
A-5	Number of eco-labelled tourism facilities or facilities applying for environmental management schemes	Pcs.	-	15

Source: own study.

Both cities have local development strategies and inventories of sites of natural and cultural interest. However, the development strategy was developed with a minimum participation of local community. The facilities apply for the EKO Zakopane certificate, i.e., Ecological Certification of Facilities, the only regional certification authority in Poland that promotes environmentally friendly solutions in the hospitality sector. Facilities that apply for certification have to meet several requirements, e.g., their architecture and landscaping must refer to local traditions, art, and style, green areas should be designed with use of native species and varieties of plants and parts of the greenery must be preserved in their natural form.

According to Caalders (1997), Cottrell and Cutumisu [39,40] good communication among the various stakeholders locally and regionally is essential to build consensus and collaborative partnerships for the development and implementation of sustainable tourism management. However, it is argued that the current management of tourism in many protected areas globally displays a lack of public participation [41,42].

This time, cooperation between organizations and local authorities is paramount to achieving any semblance of an industrial culture shift towards sustainable tourism [32]. Indicators related to the realisation of environmental obligations are particularly important for the durability of biological processes. In the opinion of the authors of the present paper, they are a key factor in sustainable tourism.

The ecological dimension emphasizes the need to reduce pressure on the physical environment [40]. Their evaluation is presented in the table below (Table 4).

Table 4. Evaluation of sustainable development of tourism in Amasya and Zakopane with respect to Environmental Indicators (B), as of the end of 2016.

Item	Indicator Name	Unit	Data Sources	
			Amasya (Turkey)	Zakopane (Poland)
B1.	Tourism transport (access to destination and return travel, local mobility)			
B1-1	Daily number of visitors per 1 km ²	No. of tourists per 1 km ²	85	97
B1-2	Local mobility: types of means of transport	Pcs.	3	3
B2.	Carrying capacity land use, bio-diversity, tourism activities			
B2-1	Maximum population density (peak season) per km ²	Per 1 km ²	57	363
B2-2	Total accommodation (beds)—modified	Pcs.	2572	3950
B2-3	Ratio of built-up area to natural areas	1:1	0.23:1	0.15:1
B2-4	Size of protected natural areas (in % of total destination area)	%	25.9%	100%
B2-5	Evolution of different leisure time activities with intensive use of resources, Evolution of different leisure time activities with intensive use of resources.	Pcs.	There are no lifts, or cable cars. Slopes are not covered with artificial snow. The city has 1 canoeing in river. It has about 7 km walking and bicycle routes along the river. There are hiking and trekking routes, camping areas around Borabay Lake. It has thermal water resources.	7 skiing stations with cable cars, and ski lifts—most of the slopes are covered with artificial snow. Total length of skiing routes is approx. 16,400 m; Aqua park with thermal waters
B.3	Use of energy			
B3-1	Percentage of renewable energy in total energy consumption (entire destination, locally produced or imported)	%	22.82%	6.8% (total consumption 200,6MW)
B3-2	Energy use by type of tourism facility and per tourist	MW	N/A	51.8
B.4	Use of water			
B4-1	Sustainable use of water resource	Ratio of water imported (pipelines, ships etc.)	1:1 (128.56 hm ² /year)	1:1 (2523.4 dm ³ /year)
B4-2	Percentage of houses and facilities connected to waste water treatment plants	%	99%	65.2%
B.5	Solid waste management			
B5-1	Percentage of solid waste separated for recycling	%	52%	96.72%
B5-2	Total of solid waste land-filled and/or incinerated	tonnes/year	25.844 thousand tonnes 25,844.00	6.1 thousand tonnes 6100.00
B5-3	Monthly table of waste production	tonnes/month	4.778 thousand tonnes 4778.00	0.5083 thousand tonnes 508.30

Source: own study.

The maximum density of local residents including tourists is considerably higher in Zakopane, as well as the number of beds, although the number of permanent inhabitants is much lower.

Empirical evidence from the hospitality industry has shown that economic performance is the highest priority, while environmental performance is the lowest priority [43–45]. When a tourism destination has not been properly planned and environmental management is lacking, tourism development may lead to serious problems for locals, such as sewage pollution, strained water resources and management [46].

In this respect, the level of sustainable development in Amasya may be evaluated as higher. Numerous mountain slopes in Zakopane are occupied by various forms of winter sports, while in Amasya part of the city are areas protected from investments. Both cities base their development mainly on natural attractions, picturesque landscapes and close contact with nature, but also rich

cultural values. As far as water consumption is concerned, the cities collect water from local intakes. According to [47], the hospitality industry is a sector where water plays an essential role. Water is used in hotel kitchens, laundries, in swimming pools, bathrooms, and in the hotel restaurant. According to estimations, water bills account for approx. 10% of the total expenses of the hotel. Podhale is located in an aquifer area so the water is drawn from local resources.

Both cities use renewable energy sources (thermal energy—Zakopane; solar power—Amasya). The renewable energy sources in Zakopane are so-called RES investments, which include heating with use of: biomass, incl. wood and the use of heat pumps and solar collectors. Poland has a very high potential of geothermal energy use, mainly in the area of Podhale and Zakopane. It was determined that 90% hotels and approx. 250 thousand households in Zakopane use geothermal energy. On the other hand, in Amasya, solar resources are used to heat water and generate power. However, the waste disposal and waste water collection solutions are poor, which affects the quality of water resources in both regions.

According to Perrings and Ansuategi [48], some indicators of local air and water quality first worsen and then improve as per capita incomes rise. This is noticeable in cities Amasya and Zakopane. Special programs are to improve air quality, reduce water consumption, etc.

The last category of analysed indicators are Social and cultural performance indicators and Economic performance indicators (Table 5). The authors have encountered numerous problems while attempting to collect them. The values are not listed in the main statistical records, so most of the presented data were based on own observations. The data obtained from the observation are as follows: “C-1—Percentage of non-resident employees in total number of tourism employees: seasonal percentage of non-resident employees in total number of tourism employees”, “C-2—Average length of contracts of tourism personnel: average length of contracts of tourism personnel”, “C-3—Percentage of land owned by non-residents”, “D-5—Average length of stay”.

Table 5. Evaluation of sustainable development of tourism in Amasya and Zakopane with respect to Social and cultural performance Indicators (C), as of the end of 2016.

Item	Indicator Name	Unit	Data Sources	
			Amasya (Turkey)	Zakopane (Poland)
C. Social and cultural performance indicators				
C-1	Percentage of non-resident employees in total number of tourism employees: seasonal percentage of non-resident employees in total number of tourism employees	% seasonal percentage of non-resident employees in total number of tourism employees	1%	20%–30%
C-2	Average length of contracts of tourism personnel: average length of contracts of tourism personnel	month	5 months	2 months
C-3	Percentage of land owned by non-residents	%	3%	8%
C-4	Number of recorded thefts	No.	660 persons	250 persons
C-5	Tourist/host population ratio	1:1	5181:1	38:1
D. Economic performance indicators				
D-1	Share of tourism in the total target GDP	1:1	2,740,410,900 TL	N/A
D-2	Employment in the tourism sector in the peak of the season/out of season in comparison to total employment in the area	1:1	N/A	0.4:1 0.6:1
D-3	Seasonal variation of accommodation occupancy	%	N/A	N/A
D-4	Total accommodation capacity per capita of resident population	Number of (registered) accommodation beds/number of residents	0.007	0.144
D-5	Average length of stay	Days	1.6 days	3 days

Source: own study.

Tourism is considered an effective method of reducing poverty in some traditional communities (Croes, 2014) because tourism provides different jobs than traditional livelihoods, as well as opportunities to sell local products [49,50]. We observed it in analyzed cities. Tourism development has also changed or harmed residents’ traditional livelihoods [50,51].

It is extremely difficult to evaluate the social, cultural and economic aspects of sustainable development of tourism. It is clearly noticeable that many non-native residents (recently also immigrants from Ukraine) are employed in the tourist sector, while in Amasya the industry employs local workforce. The rotation of employees in Zakopane is very high and it involves a major part of employees (even up to 60% of all people employed in the tourist sector). The number of accommodation beds in Zakopane is relatively high and in reality it is even higher, as most of the owners let rooms without recording or reporting it, in order to avoid taxation. It is supposed that the number of beds may be even twice as high as that provided in the records of the Central Statistical Office [38].

The conducted analysis allowed us to determine further course of action in cities. Sustainable development must refer to numerous, often seemingly different aspects. The Authors are consequently discussing the analysed issues:

- Policies of local and supra-local authorities
- Environmental
- Social and cultural
- Economic

The applied division facilitates indicating the problems related to the distinguished issues.

The conducted analyses have allowed us to indicate further directions of activities in order to develop sustainable cities (Table 6).

Table 6. Explanation of further directions of sustainable development of tourism in Amasya and Zakopane cities.

Item	Spheres of Action (Issues)	Further Directions of Sustainable Development of Tourism	
		Amasya	Zakopane
A	Political of local and supra-local authorities	<ul style="list-style-type: none"> • increase social participation in decision-making processes • increase the hotel capacity in the city for accommodation of local and foreign tourists • increase advertising of natural historical cultural values 	<ul style="list-style-type: none"> • increase social participation in decision-making processes • limit the development of large-scale accommodation facilities and multi-family housing
B	Environmental	<ul style="list-style-type: none"> • continue to expand renewable energy source (solar power) • to lead ecological education • prohibit the use of low-carbon fuels (coal) 	<ul style="list-style-type: none"> • continue to expand renewable energy source • to lead ecological education • prohibit the use of low-carbon fuels (coal) • apply penalties for burning garbage in household ovens
C	Social and cultural	<ul style="list-style-type: none"> • protection of the natural-historical-cultural values • continue to promote local products • introduce protection for employees working in tourism services 	<ul style="list-style-type: none"> • continue to promote local products • control contracts concluded with employees in tourism services • introduce protection for employees working in tourism services
D	Economic	<ul style="list-style-type: none"> • provide additional payments to improve the quality of services rendered • increase the number of qualified staff to provide quality service to tourists • increase the number of foreign language-speaking staff in tourism sector • Development of alternative tourism types (bicycle tourism, health and thermal tourism, nature tourism etc.) 	<ul style="list-style-type: none"> • provide additional payments to improve the quality of services rendered (standardization of facilities) • prohibit renting rooms without notification

Source: own study.

Both cities need the right planning approach for sustainable development of tourism. With the right planning approach, it is thought that the political, environmental, social and cultural, economic problems in cities can be solved.

4. Conclusions

In this study, tourism cities of Amasya and Zakopane were compared in terms of sustainable tourism indicators determined by Voluntary Initiative for Sustainability in Tourism (VISIT). In the absence of any of these indicators, tourism activities in the city may be disrupted. In order to ensure the sustainability of tourism in the cities, it is necessary to raise the awareness of the local people about tourism, to make the promotion of the cities well, and to use the natural and cultural resource values in an optimum way.

The overall comparison of the selected indicators for the evaluation of sustainable development of tourism in the cities Zakopane and Amasya demonstrated that the development is quite stable in Amasya, while in Zakopane there are numerous deficiencies.

The conducted analysis allows the Authors to formulate the following conclusions:

- Amasya city does not have enough number of accommodation beds and hotels, so the accommodation fee is high.
- Contrary to Zakopane, the diversity of facilities related to tourism in Amasya is limited.
- Due to the natural values that it has, it is seen that mostly cultural tourism is done in Amasya and winter tourism is done in Zakopane.
- Both cities have thermal water resources and use renewable energy sources. While thermal energy is used in Zakopane, solar power is used in Amasya.
- The assessment of sustainable tourism development in both locations revealed a significantly lower environmental impact (less environmental stress) in the location of Amasya. It is manifested, e.g., by a smaller number of residents as well as the total number of residents and tourists per 1 km².
- Concerns are also raised by a significant share of people employed on a temporary basis in Zakopane. It often eliminates permanent residents from the job market. The structure of employment in Amasya presents a different structure as it is closer to the model of sustainable development.
- The local authorities are striving for a “pro-ecological” policy, manifested in e.g., the method of receiving domestic sewage and the share of buildings connected to the sanitary sewage system.
- Indicated further actions may contribute to the development of sustainable cities. This is the last moment for Zakopane, especially in terms of improving air cleanliness and spatial order.

In this study, it can be concluded that the city of Amasya has a more stable development than Zakopane in terms of sustainable tourism perspective.

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