

DOI: 10.1515/jwld-2017-0007

© Polish Academy of Sciences (PAN), Committee on Agronomic Sciences
 Section of Land Reclamation and Environmental Engineering in Agriculture, 2017
 © Institute of Technology and Life Sciences (ITP), 2017

JOURNAL OF WATER AND LAND DEVELOPMENT
 2017, No. 32 (I–III): 63–69
 PL ISSN 1429–7426

Available (PDF): <http://www.itp.edu.pl/wydawnictwo/journal>; <http://www.degruyter.com/view/j/jwld>

Received 24.10.2016
 Reviewed 12.12.2016
 Accepted 03.01.2017

A – study design
 B – data collection
 C – statistical analysis
 D – data interpretation
 E – manuscript preparation
 F – literature search

The concept of sustainable tourism development in rural areas – A case study of Zbąszyń commune

Marta LISIAK^{BDE}, Klaudia BOROWIAK^{AE} ✉, Ewelina MUŃKO^{ABF}

Poznań University of Life Sciences, Department of Ecology and Environmental Protection, ul. Wojska Polskiego 28, 60-637 Poznań, Poland; e-mail: lismar@up.poznan.pl, klaudine@up.poznan.pl, ewelina.munko@onet.pl

For citation: Lisiak M., Borowiak K., Muńko E. 2017. The concept of sustainable tourism development in rural areas – A case study of Zbąszyń commune. *Journal of Water and Land Development*. No. 32 p. 63–69. DOI: 10.1515/jwld-2017-0007.

Abstract

Tourism in rural areas has been defined as all tourist activities conducted in rural areas. The development of tourism in rural areas is dependent on external factors (e.g. landscape attractiveness), as well as internal factors (e.g. involvement of local authorities and society). Hence, it is important to increase the tourism potential for further increase of local tourism, and in turn to intensify the social-economic development according to a sustainable policy and multifunctional rural development. The main aim of the present study was to indicate possibilities to improve tourism management of the Zbąszyń urban-rural commune. For this purpose the following detailed aims were set: to evaluate local society satisfaction with tourism development in Zbąszyń commune, to evaluate the natural-landscape state of the analyzed area, to designate a new tourist trail or to revise the existing trails, and to propose modernization of existing tourism infrastructure. The obtained results revealed that in the opinion of local society there is still not sufficient tourism development despite some natural-landscape values. Hence, activities connected with tourism enrichment should be mainly connected with designation of two new cycling trails and supplementation of tourist information signs and tables. All proposed activities leading to an increase of tourism potential should bear in mind social aspects as well as natural values and would have a positive effect on economic income of the area.

Key words: *GIS tools, natural-landscape valorisation, rural area, sustainable tourism development*

INTRODUCTION

Tourism in rural areas has been known since the beginning of the 19th century. However, in those days it was largely related to holiday cottages. Recently, tourism in rural areas has started to be identified as all tourism aspects conducted at rural areas [KUREK (ed.) 2008]. From the classical point of view, tourism in rural areas is divided into rural tourism and farm tourism [MACHNIK, KURCZEWSKI 2014]. The most characteristic features of rural tourism are space, closeness of nature and several types of leisure [KURDYŚ-KUJAWSKA 2010], while farm tourism is connected with visits of tourists to functioning farms [KIRYLUK

2005]. In addition, in rural areas specialized and landscape tourism has developed, as well as any active form of tourism to admire the unique aspects and resources of the Polish rural areas [JAGUSIEWICZ, BYSZEWSKA-DAWIDEK 2010].

The development of tourism in rural areas is dependent on several factors, both internal and external. The external factors mainly include natural conditions, such as landscape attractiveness, as well as other touristic attractions, while internal factors include quality and quantity of direct tourism aspects, such as accommodation and gastronomy as well as local society engagement [KURDYŚ-KUJAWSKA 2010]. Considering both external and internal factors, Poland is highly heterogeneous. There are areas that are espe-

cially attractive, due to a high level of natural-landscape values, but their usefulness is mainly dependent on tourism management, accommodation, area availability and technical infrastructure [CHUDY-HYSKA 2006]. Hence, it is important to increase the tourism potential for further increase of local tourism, and in turn to intensify the social-economic development [LOZANO-OYOLA *et al.* 2012; SIKORSKA-WOLAK 2009]. Sustainable tourism according to multifunctional rural development contributes to increasing employment and quality of life as well as development of local infrastructure. This has been observed in many countries with a long tradition of tourism in rural areas, and it has already been recorded in other countries located in Central and Eastern Europe [CIZLER 2013; SAWICKI, GOLIAN 2009]. Moreover, previous investigations revealed that the common opinion about tourism in the local community has changed and people have started to appreciate tourism as a part of local development [ABDOLLAHZADEH, SHARIFZADEH 2014], as well as to consider the expansion of tourist infrastructure and facilities as the most important aspects for enhancing tourism attractiveness [YAN CHIU *et al.* 2016].

The main aim of the present study was to evaluate the possibility to improve tourism management of Zbąszyń urban-rural commune. For this purpose the following detailed aims were designated: to evaluate local society satisfaction with tourism development in Zbąszyń commune, to evaluate the natural-landscape state of the analyzed area, to designate a new tourist trail or to revise the existing trails, and to propose modernization of existing tourism infrastructure.

MATERIALS AND METHODS

The study included two stages: the first consisted of conducting a survey and creating a valorisation map with the aid of GIS tools. The obtained results were used for the second stage – creating sustainable tourism development of a certain area.

The other part of the study consisted of a questionnaire, as one of the forms of local society's participation in tourism management of the commune. The main aim of the questionnaire was to analyze the potential changes in the tourism management of the area. Investigations were conducted in both local society and inhabitants of neighboring areas as well as visiting tourists. The questionnaire consisted of five questions, including one open question. The questions concerned knowledge about existing tourist trails in the analyzed area, general impressions in regard to tourism management and ideas for future tourism development.

A valorisation map was created on the basis of the modified method proposed by NARANKIEWICZ [2003]. The area was evaluated based on the natural-landscape and cultural values (Tab. 1). The area was divided into 220 squares with an area of 1 km². After summarizing points and division by area of a certain

Table 1. Parameters analysed in valorisation and points designated for each parameter

Parameter	Points
Natural-landscape parameters	
Natural monument	1 point for each object
Natura 2000 area	1 point for every 0.10 km ²
Forest area	1 point for every 0.10 km ²
Meadow and pasture area	1 point for every 0.10 km ²
Water reservoir	1 point for every 0.20 km ²
Streams	1 point for every 1 km of natural stream 2 points for every 1 km of channelized stream
Arable land	minus 1 point for every 0.50 km ²
Cultural parameters	
Park and other green area	1 point for each object
Architectural monument	1 point for each object
Tourism development	1 point for each object (i.e. catering facilities, accommodation facilities, leisure facilities,)
Settlements	minus 1 point for area <0.05 km ² minus 2 points for area >0.05 km ²
Industrial-commercial zones	minus 1 point for every 0.10 km ²
Main roads	minus 1 point for every 0.20 km

Source: own study based on NARANKIEWICZ [2003].

square, the area was classified in a relative valorisation class (Tab. 2).

Zbąszyń commune is located in the western part of Wielkopolska region and covers 179.99 km² (Fig. 1). Most of the area is occupied by forestry – 49.9% of the total commune area. Rural areas cover 39.2% and are dominated by arable land. The rest of the area is covered by built-up areas and urban areas (5.0%), water reservoirs (4.8%), as well as ecological sites and other areas (1.1%).



Fig. 1. Location of Zbąszyń commune; source: own elaboration

There are three nature protection forms located in Zbąszyń commune: two Natura 2000 areas, a landscape protected area and several natural monuments. All the protected areas are located in the western part of the commune – the habitat Natura 2000 area “Rynna Jezior Obrzańskich”, the bird Natura 2000 area “Jeziora Pszczewskie i Dolina Obrzy”, and the landscape protected area “Zbąszyńska Dolina Obrzy”. These areas form a strip located along the Obrza River together with Lake Zbąszyńskie.

In the analyzed area 19 historical monuments are located, which are involved in the evidence of monuments, and 510 objects included in Communal Monument Evidence. The most valuable historical monuments are the urban-architectural system in Zbąszyń city, several sacral objects and two palaces.

There is also a well-developed system of accommodation and gastronomy. Twenty-one accommodation buildings are located in the commune area, including 10 farm tourism places. Gastronomic facilities are located mainly in the city. A total of 640 consumer places in the form of cafeterias, pubs and hotel restaurants are located in the area. Six tourist trails are already established in the area – three cycling, two hiking and one canoeing trail [Gmina Zbąszyń 2014].

RESULTS

SURVEY

The questionnaire was conducted in the whole area of the commune, and 100 respondents were included. Most of the respondents live in the capital of the commune area (63%), while some of the respondents were inhabitants of neighboring villages, such as Nowy Tomyśl (11%), Nowa Wieś Zbąska (7%), and Przyprostynia (5%). Some of the respondents came from neighboring communes. Most of the respondents were women (67%). Age structure is mostly uniform across the age groups of up to 21 years, 21–40 and

41–60. The smallest group was represented by people above 60 years.

Most of the respondents were interested in active tourism (52%) and participation in cultural and artistic venues (32%). Only one person indicated other attractions (Fig. 2a). Respondents indicated that the most interesting trails are cycling routes (57%), hiking (26%) and canoeing (11%). Only 6% of respondents reported not using the trails (Fig. 2b). Respondents stated that the most necessary trail would be another cycling trail in the commune area (37%), as well as a hiking trail in the form of an educational route (22%). A smaller number of respondents were interested in a horse trail (18%) or another canoeing trail (11%). Only 9% of interviewees stated that the number and length of the trails were sufficient (Fig. 2c). The open question considering the potential new trail in the analyzed area was answered in several ways, such as a trail linking the towns, a trail passing through the forests in the commune area, or a trail along the Obra River and Lake Zbąszyńskie. Most of the respondents were satisfied with the local authority policy considering tourism management (84%). The last 16% of respondents did not reveal any point of view about the topic (Fig. 2d). The interviewees were also requested to evaluate the particular elements of tourism management on the scale 1–5, where 1 is the worst. The state and signs on the trails were evaluated at a medium level. There were also indicated insufficient gastronomic facilities, poor quality and small

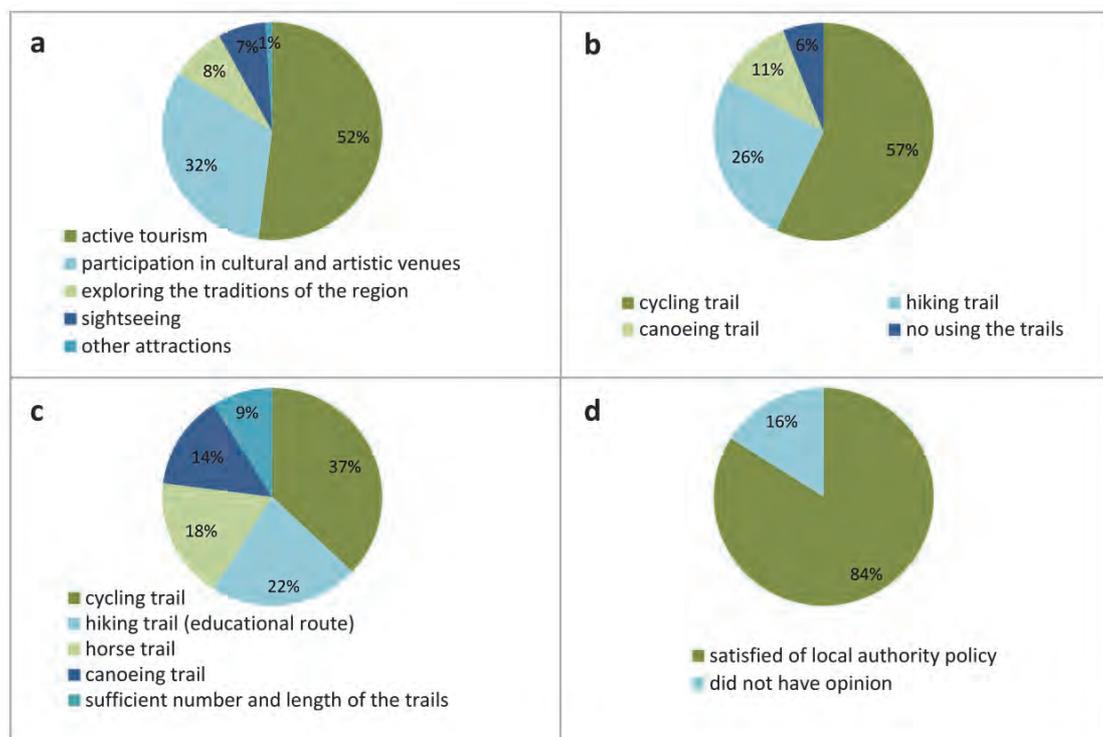


Fig. 2. Results of the conducted survey: a) What tourism attractions are of interest in Zbąszyń commune? b) What kind of trails are the most useful for you? c) What type of tourist trail should be created in Zbąszyń commune? d) Are you satisfied with the local authority policy about tourism?; source: own study

number of attractions, as well as limited availability of information about tourist trails in the area.

VALORISATION

A supplementary element of the questionnaire was the nature-cultural valorisation. The area was divided into 220 squares, and 191 squares were analyzed due to the area being greater than 0.35 km² (Fig. 3). Areas with low and very low nature-cultural values represented respectively 27% and 3% of the commune's area. A low value was mainly connected with arable areas, highways, regional roads, built up areas and industries. Areas with high and medium values were noted in 22% and 32% of the analyzed area. These areas were dispersed through the whole commune area, mainly in the forest area and around lakes. The areas with very high nature-cultural values were mainly located in nature protected areas and represent 3% of all analyzed squares (Tab. 2). Due to

very good public and individual communication, as well as tourist attractions, these areas would be proposed for designation of two additional cycling trails.

Table 2. Categories of natural-landscape values and results for examined communes

Class	Characteristics	Range of values for one square	Number of squares	Percentage of class
I	very high level of values	0.218–0.300	6	3
II	high level of values	0.136–0.217	48	22
III	medium level of values	0.054–0.135	71	32
IV	low level of values	–0.028–0.053	59	27
V	very low level of values	–0.110–(–0.029)	7	3
N.C.	areas not classified	–	29	13

Source: own study.

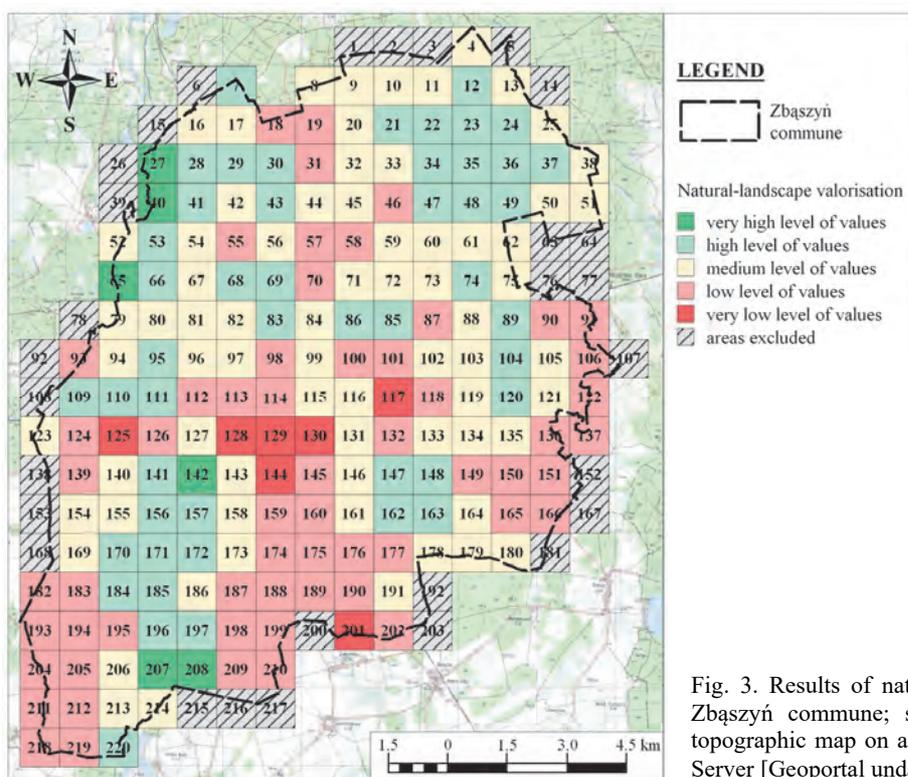


Fig. 3. Results of natural-landscape valorisation of Zbąszyń commune; source: own study based on topographic map on a scale of 1:50 000 from WMS Server [Geoportal undated]

CONCEPT OF TOURISM MANAGEMENT OF ZBĄSZYŃ COMMUNE

On the basis of the nature-cultural valorisation and questionnaire one cycling trail has been proposed as a linking route and one cycling trail with local character. Moreover, an improvement of tourist infrastructure and designation of alternative pathways for existing ones were also suggested.

The first cycling trail would be created in the eastern part of the commune from the north to the south. The trail would begin near the monument commemo-

rating prisoners who died in the Nazi camp in Przyłek. The total length of the trail would be about 18 km. The greater part of the trail would run through forest areas – 45.6% of the total trail length. The rest of the trail would run through urban areas – 4.9 km (27.2%) – or rural areas. For the proper trail assignment 165 basic signs would be necessary (counted on one side of the road) and four information signs (Tab. 3). Information signs would be placed every 200 m in forest and non-built-up areas, and every 50 m in built-up areas. Four stopping places would be located along the trail together with necessary small infrastructure.

Table 3. Parameters of cycling linking trail

part of trail	surroundings	Trail characteristics			Number of basic signs /information tables/rest areas
		speed limit, km·h ⁻¹	technical road conditions	total length, km	
1	forest areas	30	dirt road	5.1	26/1/1
2	built-up areas	50	hard-surfaced road	0.4	8/--
3	forest areas, meadows	90	hard-surfaced road	2.8	14/--
4	built-up areas	50	hard-surfaced road	1.6	32/--
5	built-up areas	50	hard-surfaced road	1.1	22/1/1
6	forest areas	30	dirt road	3.1	16/1/1
7	built-up areas	50	hard-surfaced road	1.2	24/1/1
8	arable land	90	hard-surfaced road	1.0	5/--
9	built-up areas	50	hard-surfaced road	0.6	12/--
10	arable land	90	hard-surfaced road	1.1	6/--

Source: own study based on Ustawa... [1985; 1991].

The second cycling trail would have a thematic character, linking 12 historical cemeteries located in the commune area. Some of them are forgotten old German graves. The trail is divided into a main route and two alternative sectors. The length of the main loop would be about 39 km. The first alternative route would be 10 km long, and the second 1 km. These trails are intended for more advanced cyclists and to lead tourists to other forgotten cemeteries. The time of passing through the whole trail with alternative ones would be about 3 hours. The trail would run mainly through built-up areas (34.9%; 13.6 km), while 38.7% would pass through forests and meadows (15.1 km). It has been assessed that 392 painted signs would be necessary for proper trail labeling (Tab. 4). There would be 7 information tables located on the course of the proposed trail. In the same locations some small

infrastructure should be located due to organization of rest areas.

The next point of improvement for the tourism management of the commune would be designation of alternative sections of particular trails considering attractions which have been omitted. In total seven kilometers of alternative trail were proposed. For the proper assignment of alternative trails 182 signs would be needed.

In the case of existing trails, additional signs at crossing points would be necessary. In total, 61 basic signs would be introduced in the existing trails, as well as 6 signposts and information tables. Moreover, 5 larger tables would be placed with information about the trail course, historical monuments, accommodation, gastronomy, etc., with assignment of the present position.

Table 4. Parameters of cycling local trail

part of trail	surroundings	Trail characteristics			Number of basic signs /information tables/rest areas
		speed limit km·h ⁻¹	technical road conditions	total length km	
1	built-up areas	50	hard-surfaced road	3.6	72/--
2	forest areas, meadows	30	dirt road	3.0	15/1/1
3	built-up areas	50	hard-surfaced road	0.9	18/--
4	forest areas, meadows	30	dirt road	6.2	31/1/2
5	according to green trail			8.1	84/3/3
6	built-up areas	50	hard-surfaced road	0.8	16/--
7	arable land	30	dirt road	2.6	13/--
8	built-up areas	50	hard-surfaced road	3.1	62/1/-
9	arable land	90	hard-surfaced road	2.5	13/--
10	built-up areas	50	hard-surfaced road	0.7	14/--
11	arable land	90	hard-surfaced road	1.2	6/2/1
12	built-up areas	50	hard-surfaced road	0.5	10/--
13	arable land	90	hard-surfaced road	3.0	15/--
14	built-up areas	50	hard-surfaced road	1.3	26/--
15	arable land	cycle track	cycle track	1.5	7/--

Source: own study based on the Ustawa... [1985; 1991].

CONCLUSIONS

1. The questionnaire conducted among inhabitants and tourists of the commune area revealed weak points of existing tourism management and indicated the necessity of activities which should be conducted to improve tourism potential.

2. The Zbąszyń commune is mainly occupied by areas with low, medium and high levels of nature-cultural values, due to the occurrence of extensive forestry areas, the Obra River, and three water reservoirs. These aspects have already made it possible to create conditions for sustainable tourism development and new places of active and passive leisure.

3. However, the questionnaire, as well as valuation, revealed the necessity of improving tourism development based on existing and new tourist infrastructure. Hence, activities connected with tourism enrichment should be mainly connected with designation of two new cycling trails, and supplementation of tourist information signs and tables. All concepts were performed according to the possibilities of the area, as well as to the rules of sustainable development, while bearing in mind social, economic and natural requirements. The designation of new routes and improvement of existing ones would increase the tourism potential of the area and in turn could lead to an increase of local economic income.

REFERENCES

- ABDOLLAHZADEH G., SHARIFZADEH A. 2014. Rural residents' perceptions toward tourism development: a study from Iran. *International Journal of Tourism Research*. No. 16 p. 126–136.
- CHUDY-HYSKA D. 2006. Ocena wybranych uwarunkowań rozwoju funkcji turystycznej obszaru [The evaluation of chosen conditions of development of tourism function of an area]. *Infrastruktura i Ekologia Terenów Wiejskich PAN*. No. 2/1 p. 129–141.
- CIZLER J. 2013. Opportunities of sustainable development of rural areas in Serbia. *Problemy Ekorozwoju*. Vol. 8. No. 2 p. 85–91.
- Geoportal undated. Rastrowa mapa topograficzna Polski w skali 1:50 000 [Raster topographic map of Poland in scale 1:50 000] [online]. [Access 16.09.2016]. Available at: <http://mapy.geoportal.gov.pl/wss/service/img/guest/TOPO/MapServer/WMS/Server>
- Gmina Zbąszyń 2014. Program ochrony środowiska gminy Zbąszyń na lata 2014–2017 z perspektywą do roku 2021 [Programme of Environment Protection of Zbąszyń commune for the years 2014–2017 with the perspective of 2021 year] [online]. [Access 16.09.2016]. Available at: <http://bip.zbazyyn.pl/Download/get/id,15317.html>
- JAGUSIEWICZ A., BYSZEWSKA-DAWIDEK M. 2010. Turystyka wiejska w 2010 roku i założenia jej rozwoju [Rural tourism in 2010 and the establishment of its development] [online]. Warszawa. Instytut Turystyki. [Access 16.09.2016]. Available at: <https://bip.minrol.gov.pl/content/download/31735/169394/version/1/file/turystyka%20wiejska.pdf>
- KIRYLUK H. 2005. Formy turystyki na obszarach przyrodniczo cennych. W: *Zarządzanie turystyką na obszarach przyrodniczo cennych* [Forms of tourism in environmentally valuable areas. In: *Management of tourism in environmentally valuable areas*]. Ed. B. Poskrobko. Białystok. Wydaw. WSE p. 86–99.
- KURDYŚ-KUJAWSKA A. 2010. Turystyka wiejska jako szansa rozwoju gmin i powiatów na przykładzie powiatu gryfickiego [Rural tourism as a chance of districts development on Gryfice district example]. *Folia Pomeranae Universitatis Technologiae Stetinensis*. No. 284 (61) p. 53–60.
- KUREK W. (ed.) 2008. *Turystyka* [Tourism]. Warszawa. Wydaw. Nauk. PWN. ISBN 978-83-01-15294-9 pp. 544.
- LOZANO-OYOLA M., BLANCAS J.F., GONZÁLEZ M., CABALLERO R. 2012. Sustainable tourism indicators as planning tools in cultural destinations. *Ecological Indicators*. Vol. 18 p. 659–675.
- MACHNIK A., KURCZEWSKI R. 2014. Dziedzictwo przyrodnicze w rozwoju turystyki kulturowej na terenach wiejskich [Natural heritage in cultural tourism development on rural areas]. *Turystyka Kulturowa*. No. 7 p. 34–48.
- NARANKIEWICZ E. 2003. Waloryzacja krajobrazowa gminy. W: *Program ochrony środowiska gminy Miedzichowo* [Landscape valorisation of commune. In: *Programme of environment protection of Miedzichowo commune*]. Poznań. Koło Naukowe Ochrony Środowiska AR im. A. Cieszkowskiego w Poznaniu p. 117–118.
- SAWICKI B., GOLIAN S. 2009. Potencjał turystyczny gmin położonych w południowej części powiatu łukowskiego. W: *Potencjał turystyczny regionów* [Tourism potential of communes located in south parts of Łukowo county. In: *Regional tourism potential*]. Ed. A. Balińska. Warszawa. Wydaw. FAPA p. 21–32.
- SIKORSKA-WOLAK I. 2009. Kształtowanie funkcji turystycznych obszarów wiejskich – potrzeby i możliwości. W: *Turystyczne funkcje obszarów wiejskich* [Creating of tourist functions in rural areas – needs and opportunities. In: *Tourist features of rural areas*]. Ed. I. Sikorska-Wolak. Warszawa. Wydaw. SGGW p. 23–34.
- Ustawa z dnia 21 marca 1985 r. o drogach publicznych [Act on public roads of 21st March 1985]. *Dz.U.* 2016. Nr 14 poz. 903.
- Ustawa z dnia 28 września 1991 r. o lasach [Act on forest areas of 28th September 1991]. *Dz.U.* 2016. Nr 101 poz. 1020.
- YAN CHIU H., CHAN C-S., MARAFA L.M. 2016. Local perception and preferences in nature tourism in Hong Kong. *Tourism Management Perspectives*. No. 20 p. 87–97.

Marta LISIAK, Klaudia BOROWIAK, Ewelina MUŃKO

Koncepcja zrównoważonego rozwoju turystyki na obszarach wiejskich – Studium przypadku gminy Zbąszyń

STRESZCZENIE

Turystyka na obszarach wiejskich oznacza ogół aktywności turystycznych odbywających się na tym obszarze. Rozwój turystyki na obszarach wiejskich zależy zarówno od czynników zewnętrznych (np. atrakcyjność krajobrazu), jak też od czynników wewnętrznych (np. zaangażowanie władz i lokalnej społeczności). Ważne jest

zatem, aby zwiększyć potencjał turystyczny dla dalszego wzrostu poziomu lokalnej turystyki. Prowadzi to z kolei do intensyfikacji rozwoju społeczno-gospodarczego zgodnie z polityką zrównoważonego i wielofunkcyjnego rozwoju obszarów wiejskich. Głównym celem prezentowanych badań było wskazanie możliwości poprawy zagospodarowania turystycznego gminy miejsko-wiejskiej Zbąszyń. Określono również następujące cele szczegółowe: ocena zadowolenia mieszkańców z rozwoju turystyki w gminie Zbąszyń, ocena stanu przyrodniczo-krajobrazowego analizowanego terenu, wyznaczenie nowego szlaku turystycznego bądź skorygowanie już istniejących, a także modernizacja dotychczasowej infrastruktury turystycznej. Uzyskane wyniki wskazują, że w opinii mieszkańców wciąż brakuje właściwego zagospodarowania turystycznego, pomimo posiadanych walorów przyrodniczo-krajobrazowych obszaru. Działania wzbogacające zagospodarowanie turystyczne powinny przede wszystkim skupić się na wyznaczeniu dwóch nowych szlaków rowerowych i uzupełnieniu oznakowania szlaków. Wszystkie proponowane działania prowadzące do zwiększenia potencjału turystycznego obszaru uwzględniły aspekty społeczne, jak również walory przyrodnicze, i będą miały pozytywny wpływ na dalszy rozwój ekonomiczny obszaru.

Słowa kluczowe: narzędzia GIS, obszary wiejskie, waloryzacja przyrodniczo-krajobrazowa, zrównoważony rozwój turystyki