

**LAKES UNDER PRESSURE:
DATA ON THE DEVELOPMENT OF LAKE TOURISM
IN HUNGARY**

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Abstract

The present study, which compares and contrasts the tourism and visitor-based economic development at major lakes in Hungary aims at describing how roles have changed and opportunities have presented themselves in the lake tourism sector. In the western part of Central Europe (Germany, Switzerland, Austria and Slovenia) lake tourism has grown to be a leading tourism product since the 1960s. Hungary saw a boom in its lake tourism in the mid 1960s as leaders of its centralized, planned economy changed their stance on tourism in an effort to generate income and counterbalance the possible siphoning-off of western tourists by Romanian and Bulgarian seaside resorts. Lake Balaton, Lake Tisza and Lake Velence were the recipients of state investment and emerged as the most popular lake tourism destinations.

**JEZIORA POD PRESJĄ ANTROPOGENICZNĄ: DANE DOTYCZĄCE ROZWOJU
TURYSTYKI JEZIOROWEJ NA WĘGRZECH**

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A b s t r a k t

Celem tego opracowania, w którym porównano rozwój ekonomiczny związany z turystyką wokół najważniejszych jezior na Węgrzech, był opisanie, w jaki sposób zmieniły się role i jakie nowe możliwości pojawiły się w sektorze turystyki jeziorowej. W zachodniej części Europy Środkowej (Niemcy, Szwajcaria, Austria i Słowenia) turystyka jeziorowa rozwijała się począwszy od lat 60. XX w., by ostatecznie stać się jednym z głównych produktów turystycznych. Na Węgrzech przeżywała ona okres gwałtownego rozwoju w połowie lat 60. XX w., gdy decydenci planowej, scentralizowanej gospodarki zmienili w tej kwestii swoje stanowisko, upatrując w turystyce jeziorowej szansę osiągnięcia dochodów. Jeziora Balaton, Tisza i Velence otrzymały państwowe inwestycje, stały się konkurencyjne dla nadmorskich kurortów Bułgarii i Rumunii.

Introduction

The objective of this paper is to present the changes in the tourism roles of lake tourism and their development possibilities. There were a number of objectives set in connection with our research. On the one hand we intended to examine whether lake tourism was in a favourable or unfavourable situation in Hungary and also to observe the similarities and differences among lake-side settlements. On the other hand it was our task to compare lakes and measure them against national averages. Furthermore, we also wanted to find out whether these lake-side settlements were totally different or whether they showed some similarities.

In 1964 the foreign exchange and customs regulations were simplified, the visa issuing procedure was accelerated, visa free travel was introduced with a number of countries and the foreign exchange supply of travellers was also improved. The New economic mechanism starting in 1968 also considered the development of tourism as of highest priority thus lake tourism together with holiday tourism became a leading tourism product in Hungary. By the beginning of the 1980s the shores of Lake Balaton started to be saturated, developments started to focus on Lake Velence and Lake Tisza, though which

the lightening of the burden on Lake Balaton was meant to be achieved. During the 1990 a number of national parks were established at wetland habitats (Fertő-Hanság National Park, a Balatonfelvidéki National Park, a Duna-Ipoly National Park), the national parks started to supervise areas that were valuable for them. In 1999 the Hortobágy National Park was elected among World Heritage sites and as a result the Bird Sanctuary of Lake Tisza received World Heritage protection. The Fertő-Hanság National Park had an important role in making Lake Fertő as cultural landscape a World Heritage site in 2001 so the development of eco- and natural tourism came into prominence in connection with further development of lake tourism. Further possibilities in the development of Lake Balaton, Lake Tisza, Lake Velence and Lake Fertő are presented by the fact that strategic Pan-European routes pass through these areas.

The delimitation and analysis of the lake area settlements

The analyses of the four lakes (Lake Balaton, Lake Fertő, Lake Tisza, Lake Velencei), similarly to other surveys, can run into difficulties. The reason is that it is utterly difficult to match geographical borders with administrative boundaries. Therefore, in order to dissolve this problem, we decided to use a spatial informatics software (ArcView 9.3.1.) to define settlements whose administrative area includes even a 1 square kilometre area that belong to the lake itself. Thus we ignored settlements situated further away from the lake. These of course can enjoy the benefits of a nearby lake but in this way we could avoid having to arbitrarily determine a distance within which settlements

Table 1

Lake area settlements by population (2010)

Categories by settlement size	Number of settlements	Distribution [%]	Population of settlements	Distribution [%]
-199	2	2.7	267	0.1
200-499	13	17.3	4 706	1.8
500-999	9	12.0	6 402	2.4
1 000-1 999	24	32.0	33 491	12.7
2 000-4 999	18	24.0	58 156	22.1
5 000-9 999	4	5.3	29 979	11.4
10 000-19 999	2	2.7	24 389	9.3
20 000-49 999	2	2.7	45 394	17.2
50 000-99 999	1	1.3	60 755	23.1
Total	75	100.0	263 539	100.0

Source: Hungarian Central Statistical Office, edited by the authors

should be included in the surveys as this distance varies from case to case (Table 1).

During the survey 75 settlements were delimited more than half of which had a population of between 1000 and 2000 or between 2000 and 5000. In relation to the total population the importance of these two categories is somewhat smaller, and thus the only settlement of the examined area with a population of over 50000, Sopron, can come to the limelight. All in all it can be stated that lake area settlements are mainly fragmented ones.

The current state of lake tourism

In the following section some of the indicators – that we consider important – of lake area settlements will be examined. However, it must be noted that although the settlement themselves can be compared, it is impossible to explain the current development or processes of their socio-economic phenomena solely on the basis of tourism. Although we believe these phenomena are interconnected their background is much more complex (Table 2).

Table 2

Relevant statistical data of lake area settlements

Lakes	Population, 1 January 2011	Population (2000 = 100)	Migration balance by 1000 people, 2000–2010	Unemployment rate, 2010	Per capita income, 2010 (national average = 100)
Lake Balaton	146 708	100.8	3.4	7.7	97.6
Lake Fertő	65 828	110.5	10.4	2.6	90.2
Lake Tisza	28 055	87.5	–8.0	16.8	74.5
Lake Velence	22 948	118.2	23.0	6.3	116.0
Country total	9 985 722	97.9	–	8.9	100.0

Source: Hungarian Central Statistical Office, edited by the authors

According to the most up-to-date data almost 147 thousand people lived in the 51 settlements around Lake Balaton, 66 thousand lived in the 7 settlements around Lake Fertő, 28 thousand people lived in the 12 settlements of Lake Tisza, while the 5 settlements of Lake Velence were inhabited by 23 thousand people on 1 January, 2011. These areas show a diverse picture in respect of population changes. While there has been an explicit increase in population in case of Lake Velence and Lake Fertő compared to 2000, but the population around Lake Balaton has been stagnating, and at lake Tisza there has been a decrease in population. The area of Lake Velence and Lake Fertő is characterised by significant migration, the settlements of Balaton are characterised by moderate migration, while in the area of Lake Tisza the population

has been definitely migrating from the area. The Tisza Lake area is in an unfavourable position considering two more basic indicators, namely the unemployment rate and per capita income. The unemployment rate there is above the national average, while the specific income lever is lower. The most favourable situation in respect of unemployment is observable at Lake Fertő, while in respect of income it is at Lake Velence.

It is worth further considering per capita income in detail because they indicate the most important development tendencies of the areas. Of the four examined regions the most advanced area is Lake Velence and the astest development is observable there (+15.2 percentage point). Although the area of Tisza Lake is the least developed of the examined region, its development almost reached that of Lake Velence between 2000 and 2010 (+14.7 percentage point)! Lake Balaton shows a rather stagnating tendency (+3.7 percentage point), while at Lake Fertő there has been a significant decrease reaching 17.6 percentage point! The fact that Szekesfehervár, which is one of the economic centres of Hungary, is situated nearby plays an important role in the fast improvement of Lake Velence. The other reason of the outstanding development was that it was defined as a “retro-lake” until the end of the 1990s, then from the early 2000s two settlements, Gárdony and Velence, started to develop rapidly and these settlements demonstrably increased the number of tourists arriving from Budapest. The unfavourable performance of Lake Fertő is due to the fact that the accessibility of the lake has not changed, the attraction developments financed from EU sources were finished only this year (visitor centre, reconstruction of Fertőd) and they have not made their effects felt. The development of Lake Tisza has been facilitated by the fact that it was declared to be a priority holiday destination in 1998 then a separate tourist region was organised in its area, and a well considered accommodation and attraction development also took place (Eco-centre in Poroszló, Robin Adventure Park in Tiszafüred). The ratio of the growth of commercial accommodation reached 70% in average. Of the different types of accommodation facilities pensions grew in the fastest rate while campsites grew only at a 25% rate. The number of holiday houses and hotels doubled since 2000 whereas the share of tourist hostels and youth hostels did not reach 4% combined in 2010. The question is what regional differences prevail behind these development tendencies. In this research the Hoover-index, which is often used in Hungarian literature, has been applied, which expresses on a 0–100% scale what percentage of one of the examined indicators (in this case the income from which income tax is calculated) should be regrouped among the settlements of certain sections so that its distribution could punctually equal with the distribution of the other indicator (in this case population) among the settlements. Since settlement groups of different sizes were examined we tried to measure the distribution changes per unit areas for the sake of comparability. Its formula is:

$$h = \frac{\sum_{i=1}^n x_i - f_i}{2n}$$

where:

x_i and f_i – two distribution rates (in our case the population and income share of the i th settlement from the total population and total income within the study area), for which the following two formula hold true: $\sum x_i = 100\%$ and $\sum f_i = 100\%$; n is the number of settlements in the study area.

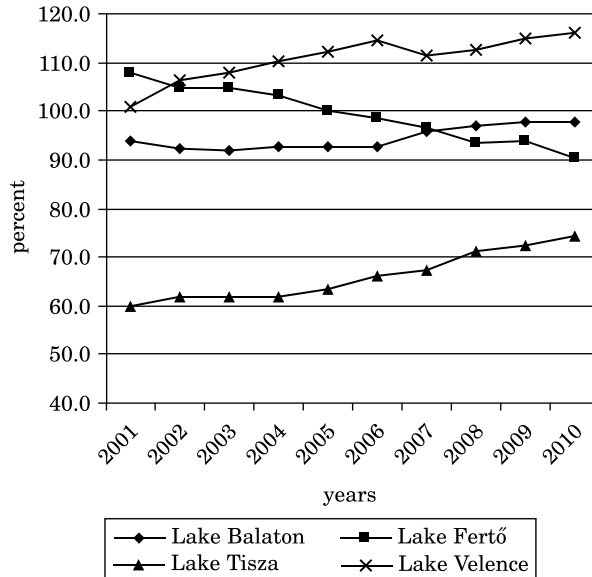


Fig. 1. Per capita income of lake area population relative to Hungarian national average (percentage), 2001–2010

Source: Hungarian Central Statistical Office, edited by the authors

The degree of the per settlement regional differences is the highest at Lake Tisza and Lake Velence and what is more the tendency is expressly positive in both cases (Table 3). On the other hand, in the case of Lake Fertő the tendency of the relatively minor differences is negative. Of the four areas Lake Balaton shows the least regional differences whose rate has not changed significantly in the past few years. The significant differences observed at Lake Velence can be explained by the rapid development of Gárdony and Velence, whereas at Lake Tisza the differences were caused by strengthening of the four large settlements in the area (Tiszafüred, Abádszalók, Kisköre, Poroszló) and the dominance of Poroszló and Tiszafüred was further enhanced by eco-tourism developments. At Lake Fertő the differences among the settlements are continuously diminishing due to the implementation of attraction developments.

Table 3

The Hoover-index of lake areas, 2001–2010

Lakes	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Lake Balaton	0.22	0.23	0.23	0.22	0.21	0.21	0.21	0.20	0.21	0.20
Lake Fertő	0.55	0.52	0.54	0.47	0.43	0.41	0.42	0.35	0.33	0.27
Lake Tisza	0.84	0.92	1.02	1.11	1.17	1.17	1.19	1.13	1.05	1.00
Lake Velence	0.73	0.79	0.63	0.76	0.86	0.94	0.88	0.90	1.11	1.01

Source: Hungarian Central Statistical Office, edited by the authors

Considering the turnover of commercial accommodation facilities of the examined areas, Lake Balaton rises above the others as one fifth of all guest nights were spent there (Table 4). This order of magnitude is not surprising if capacities are taken into consideration as more than one fourth of all the national accommodation facilities can be found there. Compared to 2000 the number of accommodation facilities grew only at Lake Tisza while the most significant setback occurred at Lake Fertő.

Table 4

Visitor related data of public accommodation establishments in the lake areas

Lakes	Guest nights, 2010	Guest nights, 2010 (2000 = 100)	Capacity, 2010	Capacity, 2010 (2000 = 100)
Lake Balaton	18.9	78.2	26.2	94.2
Lake Fertő	2.8	121.1	1.4	76.6
Lake Tisza	0.5	106.5	2.4	135.3
Lake Velence	0.9	110.5	2.0	86.3
All settlements	100.0	106.5	100.0	99.6

Source: Hungarian Central Statistical Office, edited by the authors

Between 2000 and 2010 the guest nights of commercial accommodation facilities decreased only at Lake Balatonnál, while the other areas experienced some growth. The most significant increase is observable at Lake Fertő (Figure 2). The dramatic decrease at Lake Balaton can be explained by the decreasing number of foreign guests. The decrease mainly affected the camp sites (–68%) and the holiday houses (–56%) but compared to 2000 youth hostels also received fewer foreign guests. The other types of accommodation facilities have seen an increase, the most significant increase is connected to pensions (+180%).

In 1990 almost half of all foreign visitors chose to stay in camp sites whose share in 2010 was only 24%. Hotels increased their ratio from 45% to 68% while pensions did the same from 1% to 3%. Holiday houses experienced

a decrease so only 5% of the foreign guests choose them. The combined ratio of youth hostels and tourist hostels did not reach 1% in 2009.

The number of domestic guests changed from 139 thousand to 895 thousand during the examined period. The average six-and-a-half-time increase brought about similar positive processes for all types of accommodation facilities. Hotels have experienced an eleven-fold increase while pensions saw a ninefold increase and even campsites grew in this respect by almost 60%.

In 2000 around 50% of domestic guests chose hotels, this number increased to 70% by 2010.

On the other hand camp sites saw a decrease from 27% to 9% while holiday houses from 15% to 8%. Currently pensions have a somewhat smaller share (6%) than youth hostels (7%) and that of the tourist hostels' is significantly lower (1%).

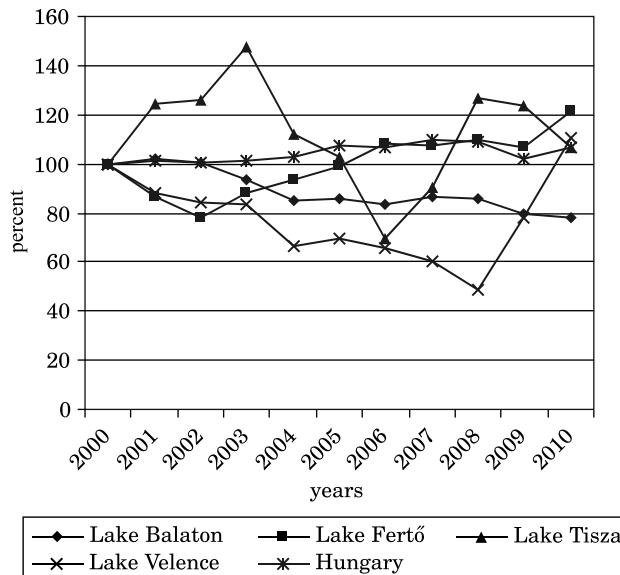


Fig. 2. Number of guest nights at public accommodation establishments
Source: Hungarian Central Statistical Office, edited by the authors

In respect of the category currently called “other” (until 2009 it was referred to as “private”) the dominance of Lake Balaton is even more significant. Four out of 10 guest nights are spent there and half of the accommodation capacity can be found there. Compared to 2000 the number of accommodation capacity decreased only here and at Lake Velence while at the two other lakes there has been a significant increase (Table 5). The number of commercial accommodation capacity of the Balaton Region stood at 76 thousand in

2010, which made it number one of the examined regions in the whole examined period. Capacity increased by almost 20% in the region between 2000 and 2010. Only campsites show a decrease, while other types experienced a significant growth. Of the tourist products camp-site tourism lost the most as in 1990 more than 70% of the capacity was in camp sites, this decreased to 32% by 2009.

Between 2000 and 2010 the number of guest nights at other accommodation establishments decreased at Lake Balatonnhl and at Lake Velence, while there has been an increase in the other two regions. The most significant increase is at Lake Tisza (Table 4).

Table 5
Visitor related data of other (private) accommodation establishments in the lake areas

Tavak	Guest nights, 2010	Guest nights, 2010 (2000 = 100)	Capacity, 2010	Capacity, 2010 (2000 = 100)
Lake Balaton	39.7	67.9	50.7	76.8
Lake Fertő	1.0	134.8	0.5	158.3
Lake Tisza	1.2	205.6	2.1	188.2
Lake Velence	0.7	16.4	1.2	85.0
All settlements	100.0	88.7	100.0	102.6

Source: Hungarian Central Statistical Office, edited by the authors

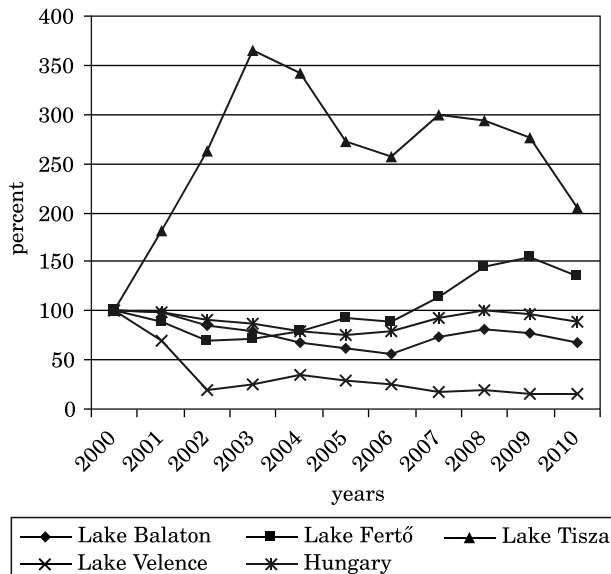


Fig. 3. Number of guest nights at other (private) accommodation establishments (percentage) 2000 = 100

Source: Hungarian Central Statistical Office, edited by the authors

At Lake Tisza there were 21 thousand visitors in 2000 and it remained similar in 2010. The intrinsic structure of the 2% increase was similar to the domestic ones: Campsites suffered significant – almost 20% – losses, nevertheless hotels had an even worse period as their losses reached almost 25%. The other types show significant increases.

In 2010 almost half of the foreign guests chose campsites followed by hotels. There was a significant increase in connection with the holiday homes as a result of which their ratio currently stands at 13%. The share of other type of accommodation establishments is negligible (Table 6).

The domestic guest nights in the region grew from 123 thousand to 196 thousand, which represent an almost 60% improvement. The greatest, more than double, increase can be observed at hotels, but pensions and holiday homes had a significant increase as well. In 2010 the visitors spent one third of all guest nights at hotels, in 1990 this rate did not even reach 10%. The rate of pensions and holiday homes is similar (24–20%) respectively. In 1990 campsites were in the first place with 80%, currently their rate does not reach 20%.

Table 6
Distribution of accommodation establishments in the Lake Tisza area

Type	2000		2005		2008		2010	
	unit	capacity	unit	capacity	unit	capacity	unit	capacity
Commercial	67	4 121	91	10 865	90	11 055	89	11 071
Hotel Type	33	1 268	40	2 155	39	2 362	42	2 455
Hotel Type	7	721	15	1 128	13	1 172	13	1 124
1*	1	40	3	191	4	250	2	79
2*	1	106	4	217	3	183	3	166
3*	4	293	7	608	5	643	5	512
4*	1	282	1	112	1	96	2	143
5*	–	–	–	–	–	–	1	224
Pension	26	547	25	1 027	26	1 190	29	1 331
Other type	34	2 853	51	8 710	51	8 693	47	8 616
Tourist hostel	3	139	2	237	3	87	2	67a1'
Youth hostel	1	112	2	168	3	342	2	363
Holiday house	18	505	24	1 155	24	1 150	22	1 020
Camp site	12	2 097	23	7 150	21	7 114	21	7 166
Private	630	3 706	787	5 148	960	6 790	1 014	7 327
Paying guest service	135	656	463	3 053	489	3 599	519	3 990
Rural accommodation	495	3 050	324	2 095	471	3 191	495	3 337
Total	697	7 827	878	16 013	1 050	17 845	1 103	18 398

Source: Hungarian Central Statistical Office, edited by the authors

Conclusions

In the system of tourism ecology lake tourism comprises of nature-, eco-, culture-, and heritage tourism as tourism product (DÁVID-CSOBÁN 2010). Tourism ecology examines lake tourism from three aspects: human ecology focuses on the relations between society and tourism; landscape ecology is a study of how landscape is structured and how it is utilised; and settlement ecology examines the relations between urbanisation processes and tourism.

The similarity in respect of development possibilities at all four examined lake areas are cycling tourism and water tourism.

Owing to European Union subsidies bicycle tracks are being built around the lakes and adjoin the great European tracks (EUROVELO-network), thus cycle tourism may become a key sector of lake tourism. Most cycle tourists spend 3–4 days at a destination near our rivers and participate in cycle tours in a hub-and-spoke way. They mainly make use of hospitality services, which are mostly catering facilities along the shore. A significantly wider range of services are used by them than by angling tourists, although it is also proved that cycling tourists attend a lot less leisure-time and cultural programmes. In their responses the interviewed cycling tourists mentioned that the reason of their visit may be relaxing, uniqueness, cultural sites and programmes, areas near their residence, wine tasting, and the weather. The greatest value for them was the presence of water but they also commended the quality of the newly built bicycle tracks.

The other product that could be further developed is water tourism; the greatest possibilities of shipping lie with excursion boats, event boats, and possibly holiday boats. In water considering angling tourism people may choose from three different options: they may fish from the shore, from a rowing boat, or from a power-boat. Since success may depend on the familiarity of the place most anglers insist on places they are accustomed to and this may be the reason why angling tourism is characterised by a hub-and-spoke nature. Waterskiing and personal water crafts belong to the sport category. They are usually linked to specific areas where the boats or personal water crafts can be stored and launched safely.

The third breakout point may be the development of a system of theme parks of which adventures parks are gaining popularity.

The development of lake tourism also comprises of gastro tourism as well as event-, angling-, and equestrian tourism. There are observable differences among the priorities thus cultural and heritage tourism is more significant at Lake Balaton while at Lake Fertő and Lake Tisza the top priority is ecotourism.

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