IDEA OF TOURIST-LEISURE MANAGEMENT OF THE AREA NATURA 2000 PLB300015 "PUSZCZA NOTECKA" IN THE MUNICIPALITY DRAWSKO

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Abstract. The aim of presented work was to evaluate the current tourist-leisure management and on this basis to designate the concept of management the Natura 2000 "Puszcza Notecka" area at Drawsko commune area. The natural-landscape valorisation revealed a very high level of environmental values. However, this potential is currently not fully utilized. For enrichment of current tourist infrastructure and full using potential of analyzed area the followed activities were here proposed: designation of new tourist routes, location a resort and small architecture objects.

Key words: Natura 2000 network, tourism management, tourist routes, natural-landscape valorisation

INTRODUCTION

European Ecological Network Natura 2000 is the youngest nature protection form in Poland. The main aim of its existing is conservation of valuable bird species, as well as to ensure biodiversity maintenance through conservation the habitats of wild fauna and flora. It does not determine directly the possibilities of protection of certain habitats, but indicates on aims and conditions of their maintenance [Wnuk 2007].

The maintenance of Natura 2000 areas includes of many aspects, which are connected with economic, management and environmental monitoring issues, as well as with tourism and recreation [Witkowski *et al.* 2007]. Proper tourist-leisure management of protected area requires strict keeping the law acts, as well as to remember about documents concerning this particular protected areas. It is commonly bearing in mind, that tourism aims should not be realized with destroying natural values of the area [Jalinik 2010]. Tourism management according Polish nature conservation law [Ustawa... 2013] at Natura 2000 area should not

significantly negatively impact on the environment, Natura 2000 network integrity and connections to other types of protection areas. If there is no negative effects on the nature the tourism can be allowed at certain areas. However, if there are several types of nature protection forms, including Natura 2000 network, an exception can be noted. In these cases the restrictions for other nature protection forms also have to be taken into consideration [Referowska-Chodak 2009].

The aim of presented work was to evaluate the current tourist-leisure management and on this basis to designate the concept of management the Natura 2000 "Puszcza Notecka" (PLB300015) area at Drawsko commune area with the respect to existing rules on protected areas. The proposed idea should cause an increase of non-invasive tourism, as well as popularization of analyzed area among local community and potential tourists.

MATERIALS AND METHODS

The valorisation of analysed are included of natural and cultural aspects, and on this basis designation of tourist-leisure management can be performed. For this purpose the point bonitation method was used [Program... 2003]. The groups of such parameters were taken into consideration: natural, landscape, cultural and other parameters. Afterwards, points for each parameter were calculated for each square (Table 1).

No	Parameter	Points			
Natural and landscape parameters					
1.	Natura 2000 area	1 point for each 0.25 square km			
2.	Landscape protected area	1 point for each 0.25 square km			
3.	Natural monument	1 point for each object			
4.	Forest area	1 point for every 0.20 square km			
5.	Meadow and pasture area	1 point for each 0.10 square km, 2 points for area between 0.11–0.50 square km and 3 points for area >0.50 square km			
6.	Water reservoir bigger than 5 ha	1 point for each 0.02 square km			
7.	River	1 point for every 1 km of river course in a non-protected area, 2 points for every 1 km in a landscape protected area			
Cultural values					
8.	Bicycle or pedestrian trail	1 point for each 1 km			
9.	Architectural monument	1 point for each object			
Other parameters					
10.	Relief	1 point for difference of more than 5 m			
11.	Industrial-commercial zones	minus 1 point for each 10 ha			
12.	Main roads	minus 1 point for each 1 km of regional road, minus 2 points for each 1 km of national road			

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

Class	Characteristics	Range of values for one square	Number of squares	Percentage of class
Ι	Very high level of values	0.099 to 0.110	2	1%
II	High level of values	0.079 to 0.098	66	32%
III	Medium level of values	0.059 to 0.078	32	16%
IV	Low level of values	0.039 to 0.058	25	12%
V	Very level of values	0.000 to 0.038	46	23%
N.C.	Areas not classified	-	32	16%

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

The sum of points obtained for these parameters determined natural-landscape values. Squares on the commune boundaries with area below 0.35 square km were excluded. The obtained results in each square were divided by area to achieve appropriate results for comparison and classify into a certain class (Table 2).

RESEARCH AREA CHARACTERISTICS

Drawsko commune, and a part of Natura 2000 "Puszcza Notecka", is located in the west-northern part of Wielkopolska region. The land use is dominated by forests and wooded areas (Fig. 1), which occupy over 61,6% of commune area. This type of area is mostly included into Natura 2000 "Puszcza Notecka" [Strategia... 2011].

Natura 2000 "Puszcza Notecka" area was categorised as special birds area in 2007. The total area is 178 255.8 ha (11 950 ha at Drawsko commune). The main attraction of the area is Mushroom Park located in Piłka [http://gminadrawsko.pl].

There are other nature protection forms in Drawsko commune (Fig. 1). Over a half of commune area, and simultaneously 70% of Natura 2000 "Puszcza Notecka" is covered by Landscape Protected Area "Puszcza Notecka". There are also nine natural monuments.

There are already existing several tourist routes in the Drawsko commune (Fig. 3) – three hiking trails and three bike routes. The tourist accommodation includes mainly agritourism, one resort and two roadhouses [Strategia... 2011].

RESULTS

Natural-landscape valorisation

171 squares were analysed from total number of 203. According to the natural-landscape methodology, squares were classified into 5 categories based on ranges of values (Table 2).

Very high values were observed in 1% of squares, located in the southwestern part of Drawsko commune. These areas are mainly covered by protected

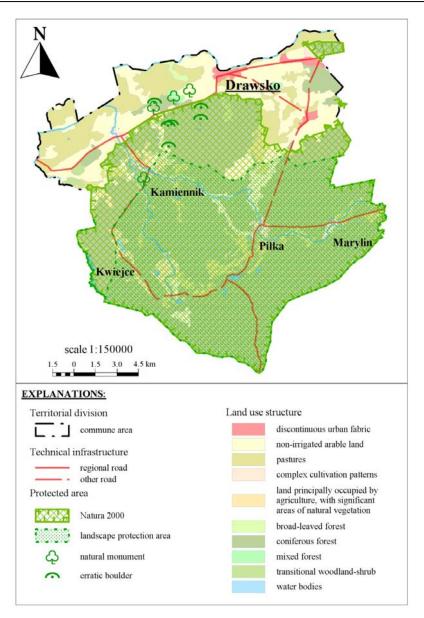


Fig. 1. Land use structure and forms of nature protection in the Drawsko commune Source: author's study, based on Corine Land Cover 2006 and topographic map on a scale of 1 : 50 000

areas, forests and architectural monuments. High levels of analysed values were noted in 32% of squares and are focused mainly in protected area Natura 2000 covered by forests. Medium values were observed in 16% of squares. Areas with a medium level of natural-landscape values are mainly located close to protected areas. Low level of natural-landscape values are located in the northern part of

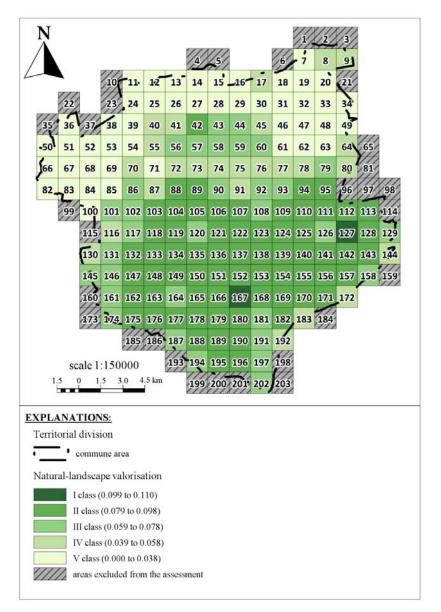


Fig. 2. Spatial distribution of natural-landscape valorisation

Source: Author's study, based on Corine Land Cover 2006 and topographic map on a scale of $1:50\;000$

Drawsko commune. The highest number of squares were categorised as having a high level of natural-landscape values. These squares cover mainly protected areas with forests (Fig. 2).

Idea of tourist-leisure management of Natura 2000 area

Based on the current rules of law, natural-landscape valorisation and development directions designated in planning documents, here were not indicated any barriers in realization of idea of tourist-leisure management. Both, Drawsko commune and Natura 2000 "Puszcza Notecka", pose a high tourism and leisure potential, which is not fully utilized.

Although, there is several hiking and bike routes in Drawsko commune area, some additional trails are proposed occurring mainly at Natura 2000 area (Fig. 3). The proposed trails supplemented existing trail system and were designated at the highly nature and landscape valuable areas. In the southern part of the commune area the "Mała pętla drawska" trail was proposed. The route length is about 30 km. The planned trail would join two villages: Kamiennik and Piłka. This solution would make possible to get the trail with families and children. Additionally the proposed trail is characterised by unique natural-landscape values. The southern part of planned trail is full of lakes, while northern part is on the way of Miała river. There are also planned two stops on the way of this trail.

The second route was named "Lezka jezior". The total length of this trail is about 40 km. There are several signboards planned on the way of this trail, which would present information about fish existing in these lakes. The wastebaskets and portable toilets would also be placed on the way, as well as small woody architecture.

Besides hiking-bike trails the canoeing route along Miała river was also proposed. The canoeing trail would be an alternative for introduction of forest landscape instead of hiking routes. The planned canoeing trail would start from Marylin village, and finish in a river Miała issue to Noteć river, where water equipment rental point would be located. There could be two information points located on the way of canoeing trail in places with high natural-landscape values (near to Piłka and Kamiennik village). The rest-information points would have a character of floating platform. There is a low water flow speed, so the trail would be relatively easy even to unexperienced tourists.

Based on strategic documents and local law rules a location of the resort is proposed in Kwiejce village. The proposed resort would increase a tourist attractiveness of surrounding areas and decrease the number of illegal bath places. The resort would be located nearby the Piast lake, which is a very scenic place and ideal for the leisure, as well as conduct possibilities to activities. The resort would have an area of about 1 ha and would consist of several woody small houses (approx. 10). There is also proposed to locate an information point at resort area with all necessary tourist information. It is also proposed to locate the rental point of water sport equipment and bikes. All planned objects would be equipped in sanitary units, and all technologies at resort area would be environmental friendly, e.g. permeable surfaces, green roofs on administration building. Additionally a playground and out-door gym would also be placed, which could be an entertainment for every-age person (Fig. 3).

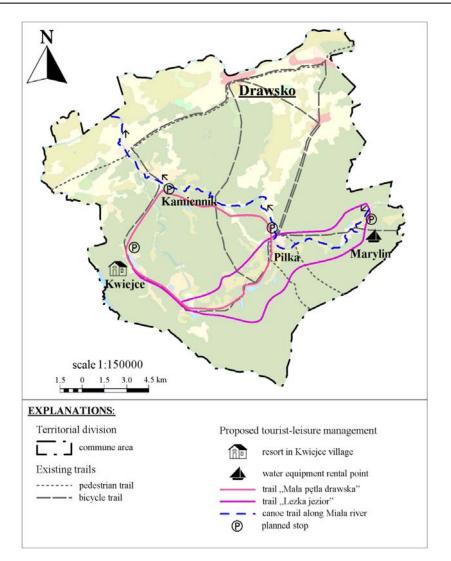


Fig. 3. Idea of tourist-leisure management of the area Natura 2000 "Puszcza Notecka" in the Drawsko commune area

Source: author's study, based on Corine Land Cover 2006

CONCLUSIONS

1. Based on valorisation it can be concluded that Natura 2000 PLB300015 "Puszcza Notecka" poses a huge tourism and leisure potential, however existing infrastructure is not sufficient and requires some changes.

2. Based on strategic documents, planning documents and conducted valorisation some solutions were here proposed – two hiking-bike trails, the canoeing water trail and resort building with woody architecture.

3. All proposed trails and their realization should be conducted according nature conservation rules to avoid negative effects on valuable aspects of Natura 2000 area, with several signboards, information points and architecture without negative effects on landscape and nature.

REFERENCES

Jalinik M., 2010. Turystyka na obszarach przyrodniczo cennych. Oficyna Wydawnicza Politechniki Białostockiej, Białystok.

Program Ochrony Środowiska Gminy Miedzichowo, 2003.

Referowska-Chodak E., 2009. Turystyka na leśnych obszarach Natura 2000. Stud. Mat. CEPL 11, 4(23), 232–237.

Strategia promocji lokalnego produktu turystycznego dla miasta Czarnków i gminy Drawsko, 2011.

Ustawa z dnia 4 stycznia 2013 r. o zmianie ustawy – Prawo wodne oraz niektórych innych ustaw (Dz. U. z 2013 r. poz. 165).

Witkowski Z., Krauz K., Mroczka A., 2007. Jaka turystyka w obszarach Natura 2000 w świetle Europejskiej Karty Turystyki Zrównoważonej na Obszarach Chronionych? W: Turystyka w obszarach Natura 2000. Red. Z. Wnuk, M. Ziaja. Uniwersytet Rzeszowski, Rzeszów, 23–37.

Wnuk Z., 2007. Wprowadzenie. W: Turystyka w obszarach Natura 2000. Red. Z. Wnuk, M. Ziaja. Uniwersytet Rzeszowski, Rzeszów, 7–12.

http://gminadrawsko.pl

KONCEPCJA ZAGOSPODAROWANIA TURYSTYCZNO-REKREACYJNEGO OBSZARU NATURA 2000 PLB300015 "PUSZCZA NOTECKA" NA OBSZARZE GMINY DRAWSKO

Streszczenie. Celem przedstawionej pracy była ocena aktualnego stanu zagospodarowania turystyczno-rekreacyjnego i na tej podstawie zaproponowanie koncepcji uatrakcyjnienia obszaru Natura 2000 "Puszcza Notecka" w gminie Drawsko. Waloryzacja przyrodniczo-krajobrazowa wykazała bardzo wysokie wartości walorów środowiskowych, jednakże ten potencjał nie jest aktualnie w pełni użytkowany. W celu wzbogacenia istniejącej infrastruktury turystycznej i wykorzystania potencjału analizowanego obszaru zaproponowano następujące rozwiązania: wyznaczenie nowych szlaków turystycznych, zlokalizowanie ośrodka wczasowego i obiektów małej architektury.

Słowa kluczowe: sieć Natura 2000, zagospodarowanie turystyczne, szlaki turystyczne, waloryzacja przyrodniczo-krajobrazowa