EVALUATION OF TOURISM RESOURCES IN THE IRON GATES NATURAL PARK IN ORDER TO IDENTIFY THE POTENTIAL OF TOURISM DEVELOPMENT

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Abstract: The Iron Gates Natural Park extends over an area of 11,500 ha and is part of the Mehedinți and Caras Severin counties. Highly attractive tourist resources are identified in the park area in the form of nature reserves and natural monuments. The inventory is completed by cultural-historical monuments, popular traditions and way of life preserved in some villages. In this study we suggest a model of assessing the general tourism related resources and infrastructure by using quantitative and qualitative methods, in order to identify the potential of tourist development of the administrative-territorial units in the Iron Gates Natural Park, considering the fact that the territory is in a protective legal framework.

Key words: Iron Gates Natural Park, tourism potential, tourism infrastructure, protected area

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INTRODUCTION

Iron Gates Natural Park is a protected area established by Law no. 5/2000 on the approval of the National Spatial Plan – Section III - protected areas as an area in which very beautiful landscapes and biological diversity can be realized while maintaining unaltered traditions, and improving the quality of community life is the result of activities economics of residents, conducted in harmony with nature (Iron Gates Natural Park Administration, 2010).

Conservation and protection nature policies promoted by the European Union had impacted the Iron Gates Natural Park. They were materialized by establishing an administrative structure, developing a management plan and zoning demarcation of the protected area, park area declaration di areas as Natura 2000 sites through which the Danube-Bazias-Iron Gates and Almaj-Locvei Mountains are protected fauna areas throughout the Iron Gates Natural Park is the Site Community Importance. Administration of the park was founded in 2003 and manages complex activity conservation of the natural and socio-cultural and development of targeted legislation that are planned development of area the Iron Gates Natural Park.

The Iron Gates Natural Park is an internationally recognized heritage because of its scientific and geological complexity, biological diversity and cultural vestiges, as demonstrated by (Manea, 2003; Matacă et al., 2006):

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http://istgeorelint.uoradea.ro/Reviste/Anale/anale.htm
- the existence of 18 protected areas of national interest (nature reserves);
- diversity and high value of landscapes (forests, caves, mountains, water, rural areas);
- international recognition of nature reserves;
- geological and geomorphologic diversity (geo-sites at Cozla, Muntean-Dumbravita Bahna); rich speleological potential, some even have the status of reserves and natural monuments (Water Cave, Cave Chindia, Cave Ponicova);
- the wetlands represent habitats for bird species that are protected worldwide; the diversity of wildlife, over 1600 plant taxa and over 5200 faunal taxa (some of them of endemic nature: the Kazans’ tulip, turtles);
- Danube’s course with effects on the landscape (Danube’s Gorge);
- existence of the rural areas - the ethnographic area „Danube’s Gorge” (you can experience the local lifestyle);
- diversity of heritage sights: monasteries, churches, archaeological sites, protected areas with the greatest ethnic diversity (Romans live together with the Czechs, Serbs, Germans). A synthesis of these various natural and anthropogenic resources is embodied in the park’s symbol: the botanical feature (endemic element represented by the Kazans’tulip), the historical one (the Tricule towers), the geological (a fossil of ammonite).

METHODOLOGY AND DOCUMENTATION

In order to develop an assessment methodology of the tourism potential we used quantitative and qualitative methods. These methods highlight the less developed tourist areas or identify alternative tourist areas, which have a potential comparable to the areas highly demanded by tourists (Albu, 2007).

The methodology was inspired by the National Zoning Plan, created by the Ministry of Tourism and Public Works, which is an analysis based on national quantitative indicators. The present study uses the qualitative method; also here the indicators are evaluated objectively and they help us assess the resource components of tourism potential at an administrative-territorial unit. An important role in the methodology of assessing the development of tourism potential is to establish the factors which have to be taken into account and the scheme with scores for different factors. We set for each area the components of tourism potential and infrastructure. To identify the components we used the method of graphs (figure 1).

![Figure 1. Evaluation model for tourist development potential](Source: adaptation after Albu, 2007)
We agreed that the development of tourist potential will be evaluated by summing the values of tourism potential (natural tourist potential + anthropogenic tourist potential) to those of general infrastructure (technical infrastructure + tourist infrastructure).

Five basic elements (topography, climate, biodiversity, hydrography, landscape) were taken into account when setting the values of the natural potential. These 5 elements were assessed by 8 indicators: landform, geomorphological attraction, climate, rivers, forest and endemic flora, nature reserves, hunting, natura landscapes (Olaru, 2000). To these, we added an index on pollution, which can reduce the natural potential. With regard to the anthropogenic potential and infrastructure we used a scoring scheme for 9 indicators of the cultural-historical potential, 12 indicators for tourism infrastructure (accommodation, tourist routes and info-documentation centers) and 7 indicators to evaluate the technical infrastructure.

EVALUATION OF NATURAL RESOURCES

Besides the score for the natural tourism potential (25 points), a scale value was also assigned with values between (figure 2): low potential (9-13 points), medium potential (13-19 points), high potential (19-22 points). The analysis of this section indicated that the Iron Gates Natural Park has administrative units - Dubova and Sviniaţa - ranging from 20 to 22 points (very close to the maximum points allotted). A special interest is the Clisura from Boilers in the refreshing monotony occurring limestone landscape with its towering forms it generates (Albuletu, 1982). This high score is due to the highly attractive landscape: Great Kazans and Small Kazans, with steep walls bordering the Danube’s banks, both Romanian and Serbian (Great Ciucarul and Small Ciucarul in the Iron Gates Natural Park) and Great Stirbăţul (in the National Park Djerdap).

Besides the beauty of the natural landscape, which is the first tourist attraction, this area also offers sights of particular interest: Ponicova Cave, one of the most important and visited caves of the seven identified in the Great Ciucaru, the impressive heights of Almajului mountains which offer belvedere points, the bays of Mraconia and Dubova that complete the beauty of the landscape, the Svinita fossils, the geological site Dumbravita Munteana, elements of endemic vegetation, the protected areas which form the basis of the ecotourism development in this region (Boengiu, 2008).

In contrast there are administrative units like: Cârbunari, Berzasca, Gura Văii, Moldova Nouă with results between 9 and 13 points.

![Figure 2. Graphic representation for the evaluation of natural and anthropogenic resources from the Iron Gates Natural Park](image-url)
EVALUATION OF ANTHROPOGENIC RESOURCES

The analysis of anthropogenic resources (maximum score 25) used eight indicators of cultural-historical potential (archaeological sites, architectural monuments, monuments of popular technique, memorials, museums, traditional cuisine). The distribution and abundance of human tourism resources in the Iron Gates Natural Park gives a score above average for the town Orsova and the villages Sichevița and Dubova.

These scores are reflected in the diversity of historical monuments, architecture and traditional technique: Monastery St. Anne, Catholic Cathedral, memorials, museums (Museum Pamfil Șeicaru in Orsova, Collection of Ethnography Doina Olimpia and Theodore Gregory in Dubova, Museum of Ethnography and Archaeology in Gornea), water mills on the Sichevița, Gravensca and Camenița valleys, traditional and cultural events related to the seasonal cycle.

The achieved score was segmented by a scale of values between low potential (4-7 points for the villages: Carbunari, Ilovița, Svința, Coronini), average potential (7-13 points: Pojejena, Gura Vaii, Berzasca, New Moldova) high potential (over 13 points: Orsova, Dubova and Sichevița).

The analysis of natural and anthropogenic resources from Iron Gates Natural Park (figure 2) revealed that two administrative units have high rating: Dubova, Orsova, Sichevița. They are addressed to various tourists interested in scientific tourism, ecumenical tourism, water sports and ecotourism. At the other end we have: Carbunari, Garnic and Berzasca with a result between 14 and 21 points.

EVALUATION OF TOURIST INFRASTRUCTURE

The entire tourism potential is not exploited enough. Local communities should be more interested in developing tourism activities. Economic resources are territorially limited and tourism can help develop the local economy.

Tourism offer is completed by the presence of a specific material-technical base (the accommodation and entertainment, food, property tourist transport) with some particular characteristics depending on available tourism resources value (Candea & Simon, 2005).

Therefore, tourist infrastructure is an important element in assessing the potential of development, which, in this study, is rated at 20 points combined after analyzing the following indicators: accommodation (hotels, guesthouses, tourist lodges and shelters), catering, leisure parks and info-documentation centers.

The analysis of tourist infrastructure indicators shows that accommodation is very limited in the area of the Iron Gates Natural Park and that pension units are predominant, except cities where there is a balance between the number of places offered by urban pensions and hotels. Thus, the specific tourist infrastructure which records the highest score is owned by the city of Orsova and Dubova which also polarize the Iron Gates Natural Park area (figure 3).
EVALUATION OF TECHNICAL INFRASTRUCTURE

To assess this section, several factors were mentioned regarding the direct access to major transport infrastructure (European road, highway, fluvial port) and municipal infrastructure (network supply with current water current, sewage).

Orsova has the technical equipment with the highest score (30 points) due to its access to the European road E 70, also due to the fact it is a fluvial port and its urban facilities (water supply and sewage). This is followed by Gura Vaii, which also has access to the E 70 and because of its proximity to the city Drobeta Turnu Severin (the biggest city in the Mehedinți County). The medium potential of the technical infrastructure is held by New Moldova, Dubova and Svinita (12 - 15 points).

The lowest score, due to the technical infrastructure, is found in the villages: Coronini, Berzasca, Pojena, Carbunari, Sichevița, Ilovița, Garnic.

The analysis of tourism resources and infrastructure gives an overview of the Iron Gates Natural Park. The score obtained after the evaluation of natural resources, human resources, specific tourist infrastructure and technical infrastructure highlights the potential of tourism development in the administrative territorial areas from this study (figure 4).

CONCLUSIONS AND PROPOSALS

This analysis underlines the fact that there is no correlation between general infrastructure and tourist resources (figure 5):

- some villages, despite their natural potential are particularly disadvantaged by the lack of tourism and technical infrastructure (the park’s western areas, Sviniața);
- other sub-areas, although they lack in natural resources are ranked among the first because they have specific elements of infrastructure (access to European road, rail access, basic accommodation, proximity to urban areas).

This assessment (table 1) allowed us to classify the administrative units of the Iron Gates Natural Park based on their potential of tourism development, as follows:

- administrative units with low potential: Garnic, Carbunari, Ilovița;
- administrative units with average potential: Gura Vaii, Eselnita, Sviniața, Berzasca, Sichevița, New Moldova, Pojejena;
- administrative units with high potential: Orsova and Dubova.

The success of tourism development requires tourist planning or a tourist development strategy that implies the management of natural and anthropogenic resources. This process means finding places or elements with tourist potential, and also finding ways to meet current or future request (Dumbrăveanu, Daniela, 2004), which can reduce the burden and impact of tourism on the natural landscapes from Iron Gates Natural Park. Thus, three routes have to be improved:
- the cultural route for industrial objectives - the Cozla mines, Bigar and Baia Noua, but also the industrial centers, Orsova and New Moldova, which can be regarded as a source of income for the local economy through their conversion to tourist areas, following the same trend applied successfully in the former industrial areas of western and central Europe;
- the cultural route which exploits the ethnographic potential of water mills (Sicheviţa, Berzeasca, Padina Matei or around villages with ethnic Czechs like Ravensca, Garnic or Bigar;
- bicycle routes through the woods of beech, oak, hazel, with various sectors of slopes: Saint Helena - Garnic - Bigar - Eibenthal - Danube’s Gorge; Balta Nera - Ostrovul Moldova Veche; Schela Cladovei - Balta Nera - a route specific to the Valley of the Danube). All these aspects are solutions that develop a sustainable tourism (ecotourism) through specific set-ups in the administrative-territorial units of the Iron Gates Natural Park.

**Table 1.** The potential of tourism development of Iron Gates Natural – assessment by score –
(Data source: calculation and contributing of author)

<table>
<thead>
<tr>
<th>Territorial administrative unit</th>
<th>Total score tourism resources</th>
<th>Total score general infrastructure</th>
<th>Potential of tourism development</th>
<th>Hierarchy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gura Văii</td>
<td>26</td>
<td>30</td>
<td>56</td>
<td>3</td>
</tr>
<tr>
<td>Iloviţa</td>
<td>23</td>
<td>10</td>
<td>33</td>
<td>10</td>
</tr>
<tr>
<td>Orşova</td>
<td>35</td>
<td>45</td>
<td>80</td>
<td>1</td>
</tr>
<tr>
<td>Eşeniţa</td>
<td>22</td>
<td>21</td>
<td>43</td>
<td>7</td>
</tr>
<tr>
<td>Dubova</td>
<td>47</td>
<td>30</td>
<td>77</td>
<td>2</td>
</tr>
<tr>
<td>Sviniţa</td>
<td>31</td>
<td>20</td>
<td>51</td>
<td>4</td>
</tr>
<tr>
<td>Berzasca</td>
<td>21</td>
<td>22</td>
<td>43</td>
<td>7</td>
</tr>
<tr>
<td>Sicheviţa</td>
<td>32</td>
<td>4</td>
<td>36</td>
<td>9</td>
</tr>
<tr>
<td>Gârnic</td>
<td>20</td>
<td>2</td>
<td>22</td>
<td>12</td>
</tr>
<tr>
<td>Cârbunari</td>
<td>14</td>
<td>10</td>
<td>24</td>
<td>11</td>
</tr>
<tr>
<td>Coronini</td>
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<td>15</td>
<td>39</td>
<td>8</td>
</tr>
<tr>
<td>Moldova Nouă</td>
<td>26</td>
<td>25</td>
<td>51</td>
<td>4</td>
</tr>
<tr>
<td>Pojejena</td>
<td>29</td>
<td>20</td>
<td>49</td>
<td>5</td>
</tr>
</tbody>
</table>

**Figure 5.** The potential of tourism development of Iron Gates Natural – the map of territorial administrative unit
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