

ASPECTS REGARDING THE SUSTAINABLE TOURISM IN THE DANUBE DELTA BIOSPHERE RESERVE

MERCE IULIANA IOANA¹, MILIN IOANA ANDA^{*1},
DUMITRESCU CARMEN¹, GORDAN MARIUS¹, LUNGU MARIUS¹

¹University of Life Sciences "King Mihai I" from Timisoara,
Faculty of Management and Rural Tourism, Romania

*Corresponding author's e-mail: andamilin@usvt.ro

Abstract: Currently, tourism represents one of the fields with a very high potential for economic growth. In this field, the biggest challenge is to be competitive in the conditions of practicing sustainable tourism, knowing that in the long-term competitiveness is given by the way resources are managed. However, in order to respect the sustainable nature of tourism in the Danube Delta area, the intervention of management actions is necessary in all spheres of activity carried out on the territory of the Danube Delta Biosphere Reserve. Finding the balance between the development of the tourist destination of the Danube Delta and the protection of the environment, as well as the development of competitive, sustainable economic activities that bring benefits to local communities, is a real challenge for the local and national administrations. All these aspects are addressed during the work.

Key words: Danube Delta Biosphere Reserve, sustainable, tourism, nature, public

INTRODUCTION

The Danube Delta is part of the universal natural heritage, a fact that is mainly due to the original combination of relief elements, water, vegetation, population and human settlements. It is this territory that gave us the opportunity to place Romania on the international map of sustainable tourism. However, in order to respect the sustainable nature of tourism in this area, the intervention of management activities is necessary in all spheres of activity that are carried out on the territory of the Danube Delta Biosphere Reserve. Finding the balance between the development of the tourist destination of the Danube Delta and the protection of the environment, as well as the development of competitive, sustainable economic activities that bring benefits to local communities, is a real challenge for the local and national administrations. [12]

MATERIALS AND METHODS

The research method is based on the analysis of the main (unique) characteristics of the Danube Delta Biosphere Reserve, of the "tourist movement" in this area, as well as the management of the management aspects that the authorities have in mind for the practice of sustainable tourism in the area. For a clear picture of the research results, we have structured this part into four subdivisions - the presentation of the research area, the evolution of accommodation units, the number of tourists in the Danube Delta and educating the public about the practice of sustainable tourism in the area under study.

RESEARCH RESULTS

1. Presentation of the research area

Summarized, the protected areas in Romania - which also include the Danube Delta - can be presented as follows:

Table 1.

Surface of protected areas in Romania (selection)-Ha							
	2010	2012	2014	2016	2018	2019	2020
Biosphere reserves	664446	664446	664446	661939	661939	661939	662047
The Danube Delta	580000	580000	580000	576421	576421	576421	580000
Wetlands of international importance	616571	804497	1089448	1096640	1096640	1096640	1108880

Source: <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>

After covering a distance of more than 2,860 kilometers and collecting the waters of an impressive hydrographic basin with an area covering more than 80% of the surface of Europe, the Danube forms one of the largest wetlands on Earth when it flows into the Black Sea, a unique delta, of international importance, where the combination of water and land represents an environment that offers proper living conditions for a large number of plant and animal species.

The Danube Delta falls both in the category of Biosphere Reserves and in the category of Wetlands of international importance, representing an important percentage of all the total {of these} special areas of the national territory. [12]



Figure 1. The geographical position of the Danube Delta-the Danube Delta Biosphere Reserve

In 1990, the Romanian Government declared the Danube Delta a biosphere reserve, a fact later confirmed by the Romanian Parliament through Law no. 82/1993. The inclusion of the Danube Delta in the international network of biosphere reserves confirmed the universal value of the reserve, a value also recognized in the "Man and the Biosphere (MAB)" program launched by UNESCO. [14]

Table 2.

The characteristics of the Danube Delta Biosphere Reserve

THE DANUBE DELTA	- preserves characteristic ecosystems and contains strictly protected areas, areas of traditional use of resources, (fish or shrub resources) and buffer zones (to reduce the impact of human activities);
	- it is a territory or a coastal/marine area in which people are an integral component and which is managed for objectives ranging from complete protection to intensive but sustainable production;
	- it is a regional center for monitoring, research, education and training on natural and managed ecosystems;
	- it is a place where government decision-makers, scientists, other decision-makers and the local population cooperate in developing a model program for the administration of territory and water, for solving human needs together with the conservation of natural processes and biological resources;
	-serves as a symbol of voluntary cooperation for the conservation and use of resources for the good of people everywhere.

We underline the fact that within the Danube Delta there are:

Table 3.

Zoning of the Danube Delta Biosphere Reserve

THE DANUBE DELTA	1. Protection zones	- restricted areas, (within the Danube Delta Biosphere Reserve about 9% of the territory); there are 20 such protection zones.
	2. Buffer zones	- surround the strictly protected areas; - traditional activities of the inhabitants of the delta can take place (fishing, reed harvesting, grazing, agricultural crops on limited areas, as well as the practice of tourism, all under strict control). - there are 223,300 ha of buffer zones (about 39% of the territory).
	3. Economic zones	- the rest of the reserve (human settlements, areas designed for fish farming, agriculture, forestry and other uses characteristic of the region). -all economic activities , which do not directly or indirectly affect the natural ecological balance of the entire territory, are allowed
	4. Areas of ecological reconstruction	-areas that will be returned to the natural circuit; 11,425 ha have already been ecologically restored, this area representing the largest area of ecological reconstruction in Europe. These areas have resumed their natural functions as wetlands, providing plant and animal species with new places of refuge, feeding and reproduction

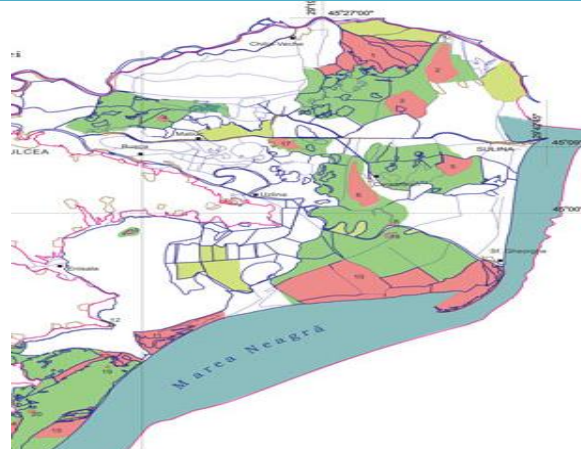


Figure 2. Map of the Danube Delta Biosphere Reserve

2. The evolution of accommodation units in the Danube Delta

The vast territory of the Danube Delta Biosphere Reserve has natural and anthropogenic tourism resources, resources that can be exploited through the practice of

tourism. These are tourist attractions with a unique character, which create the tourist product of the area.

The total number of accommodation units, at the national level, increased in the period under study by 3,924 units, and in the Danube Delta area the increase was significant +403 accommodation units. [13]

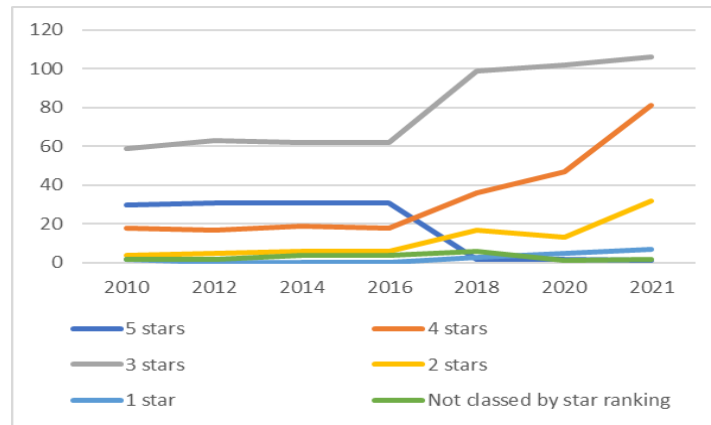


Figure 3. The evolution of the absolute value of tourist reception structures in the Danube Delta

For the Danube Delta, by comfort category, the situation of all accommodation units is as follows - only one 5-star unit is registered, the number of 4-star ones has increased (+63 units), at 3-stars there are registered + 47 units, at 2-stars there are +28 units and at one star there are only 7 units. The number of unclassified units is small.

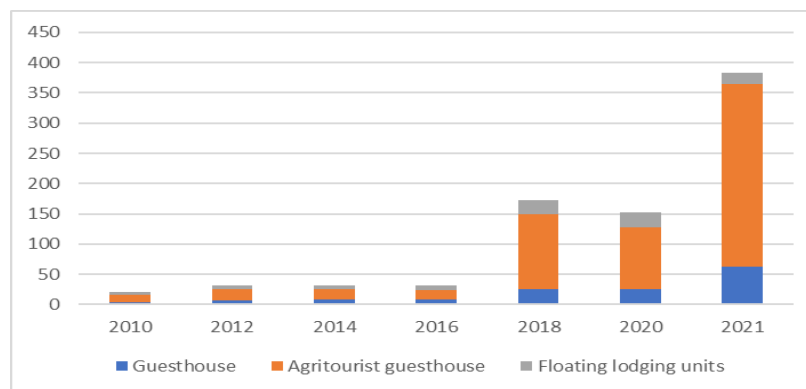


Figure 4. Dynamics of the absolute value of tourist guesthouses in the Danube Delta

The number of tourist guesthouses (+59 in 2021 compared to 2010) and agro-tourism (+289) increased significantly. An important aspect for this area - the number of floating hotels has increased (+16).

3. The evolution of the number of tourists in the Danube Delta

The behavior of each tourist has effects in the locality (country) of destination, especially in those areas where the culture differs substantially from the external environment of the visited area. For the Danube Delta area, we must make tourists aware of becoming responsible tourists, people who take into account the pillars of sustainable development when defining their tourist travel package (accommodation, transport, leisure activities), show a respectful behavior towards nature, culture, population and destination.

The increase in the number of tourists at the global, regional and national level is determined by multiple economic and social phenomena (the reduction of the work week, the development of the means and ways of communication, the diversification of the tourist offer in terms of territory, the increase in the need for recreation for the inhabitants of the urban environment, the computerization reservation system). These developments determine certain peculiarities of tourism during the last 30 years, among which - the increase in the range and speed of travel, the diversification of types of tourism, the participation in tourism of families with medium and low incomes. [15]

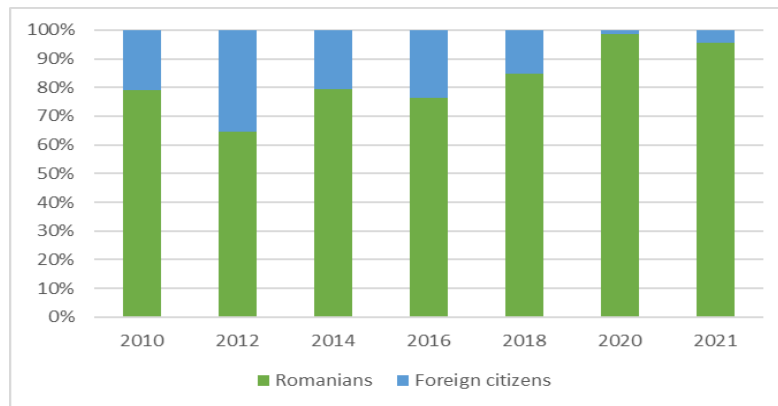


Figure 5. Percentage of Romanian and foreign tourists in arrivals from the Danube Delta

The analysis of the number of foreign tourists indicates that in the period 2010-2018 it was slightly fluctuating but remained around 20-30%. In 2020 it dropped by quite a bit but already in 2021 it registered a slight increase, which indicates that this destination is once again sought after by foreign tourists. [14]

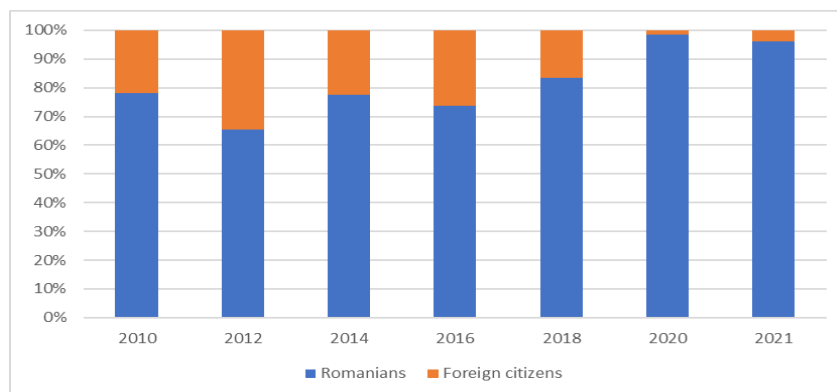


Figure 6. Percentage of overnight stays of tourists in tourist reception structures, according to the origin of tourists

Regarding means of transport used by foreign visitors to reach our country, the first place is road transport, followed by air. Rail and sea transport is little used by tourists arriving in our country.

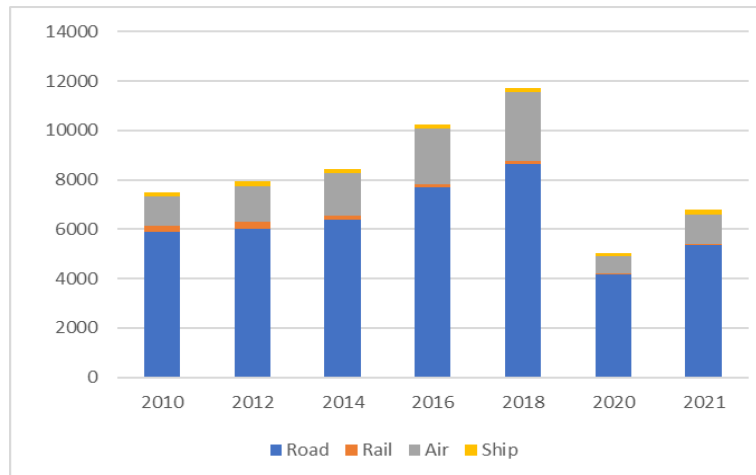


Figure 7. Arrivals of foreign visitors in Romania by means of transport used

4. Educating tourists and local residents

In order to achieve the objectives of the sustainable socio-economic development of the Danube Delta area, an important condition that must be met is public awareness and education, processes designed to allow access to information, understanding and correct interpretation of information, as well as encouraging the participation of local communities in taking managerial decisions through:

- favoring exchanges of experience between reservations, in order to strengthen the participation of local communities and volunteers in the activities of the reservation;
- promoting the formation of information and education centers. [12]

The Administration of the Danube Delta Biosphere Reserve carries out information and environmental education activities through information centers, in order to achieve the following objectives [13]:

1. forming a positive and active mentality to protect renewable natural resources, to harmoniously integrate human activities in this special area;
2. improving the population's ability to understand the complexity of the environment, the concepts of biosphere reserve and sustainable development, the fact that the integrity, quality and productivity of natural ecosystems condition the health and well-being of local communities;
3. increasing the level of awareness of the local population and attracting its support and participation in making management decisions of the Danube Delta Biosphere Reserve;
4. ensuring good information and increasing the level of awareness of visitors and tourists;
5. ensuring a flexible, attractive and efficient environmental education system for children and young people;
6. facilitating communication and collaboration between non-governmental organizations, schools, public authorities, mass media, specialists, businessmen and the general public, in order to solve existing environmental problems.

CONCLUSIONS

In order to create an attractive, sustainable, natural and cultural tourism product, you need a well-preserved and attractive nature, an interesting landscape, a valuable cultural heritage and the support of quality services. All this can be achieved through measures of:

- environmental conservation - correct zoning of the Danube Delta Biosphere Reserve, - efficient management of visitors,
- preservation of cultural values - monuments, sites and cultural objectives are real values for a region, their administration and integration into tourist circuits must be planned in the long term. Monuments and cultural sites are sources of unique emotional and aesthetic experiences, for this reason the preservation and active use of the heritage of a region represents, for modern society, a gain.
- the development of tourist infrastructure - efficiently built facilities and services, personalized reception, transport and infrastructure, increasing the number of security and protection agents,
- improving the communication and promotion process - the communication strategy that must be implemented in the Danube Delta must support the strategic projects of the

REFERENCES

- [1]. **IONESCU I.**, 2000, Turismul fenomen social-economic și cultural, București, Editura Oscar Print
- [2]. **ISAC F.L.**, 2009, Comunicare comercială. De la mesaj la consumator, Editura Universității Aurel Vlaicu din Arad
- [3]. **MAXIM O.I.**, 2010, Economia turismului. Noțiuni teoretice de bază, Editura Universității Aurel Vlaicu din Arad
- [4]. **MINCIU R.**, 2000, Economia Turismului, București, Editura Uranus
- [5]. **NEASCU N., BARON P., SNAK O.**, 2006, Economia turismului, Editura Pro Universitaria, Bucuresti
- [6]. **NISTOREANU P.** (coord.), 2003, Ecoturism și turism rural, București, Editura ASE
- [7]. **NISTOREANU P.**, 2005, Economia turismului, Editura ASE-București
- [8]. **STANCIU E., FLORESCU F.**, 2009, Ariile protejate din Romania-Notiuni introductive, Editura Green Steps
- [9]. ***Istoria Dobrogei - https://www.google.ro/webhp?sourceid=chrome-instant&rlz=1C1 SAVU_enRO591RO592&ion=1&espv=2&ie=UTF-8#q=istoria+dobrogei
- [10]. ***Legea nr. 82/1993 privind constituirea Rezervației Biosferei "Delta Dunării"
- [11]. ***Plan local de acțiune pentru mediu județul Tulcea 2020
- [12]. ***Plan strategic pentru dezvoltarea turismului durabil în Delta Dunării «Dezvoltarea potențialului pentru un turism durabil într-o zonă umedă Natura 2000, ROE / 041 / 06, 2009 <http://www.natura2000.ro/reteaua/romania/>
- [13]. ***Raportul privind starea mediului în rezervația biosferei Delta Dunării, 2020
- [14]. ***Strategia integrată de dezvoltare durabilă a Deltei Dunării- Hotărârea Guvernului nr. 602/2016, Monitorul Oficial nr. 789/07.10.2016
- [15]. *** <https://www.mdlpa.ro/pages/strategiadede dezvoltaredurabila>
- [16]. ***INSS-wwwtempo-online