

ECOTOURISM IN THE DANUBE DELTA

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Abstract

This research aimed to analyze ecotourism in the Danube Delta in 2023 versus 2019 using the data from National Institute of Statistics. The methodology included description of the main ideas from the studied literature, data processing using fixed indices, polynomial regression equations, R square, comparisons, and showing the results in graphics and tables. The results showed that ecotourism niches in the Delta are: bird watching, wildlife watching and studying, fishing, canoeing, kayaking, cycling, trekking, boat tours on the canals, admiring the sunrise and sunset, tasting the specific dishes of the local gastronomy, enjoying taking part to the local traditional folk events, visiting the Danube Delta Biosphere Reserve for getting knowledge and enriching the scientific horizon. In this way, both tourists and the locals become aware of the importance of ecotourism for the sustainable development of the environment, the preservation of biodiversity and assuring the economic and social development of the residents and their communities. In 2023, in the Danube Delta, there were 493 accommodation units by 94% more than in 2019. Also, in 2023, the number of beds reached 10,942, being by 51.8% higher versus 2019. In 2023, the Delta received 136,979 eco-tourists (82.3 % of the 2019 level. Romanians are dominant with a share of 93.4%. Foreigners' weight was only 43.8% in 2023 of the 2019 level. In consequence, the overnight stays were 286,255 in 2023, by 25.4% smaller and the Romanians' share was only 80%. The main causes are the Covid-19 pandemic in the year 2020 and the war in Ukraine. In 2023, 5,621 tourists, of which 72.4% Romanians visited the Biosphere Reserve. The key aspects which need more attention in the future are: investing more in infrastructure, assuring labor force according to the needs, diversification of facilities and tourism activities, making the resident population to be more involved in the management of natural resources and solving the community problems.

Key words: ecotourism, niches, demand and offer, economic, social and environment impact, the Danube Delta

INTRODUCTION

According to The International Ecotourism Society (TIES), ecotourism is defined as: “*an ethical travel to natural areas that help the well-being of local people and conserves the environment.*” [40].

Ecotourism is gaining a more and more importance in the world as it is a tourism form taking place in natural areas, has a positive economic and social impact sustaining local communities, and involves a learning experience. For this reason, it is considered "a

bridge" between conservation and sustainable development.

But because the population is lacked of a proper environmental education, ecotourism is facing many challenges. For this reason, it should be seen as a learning tool destined to sustain initiatives for natural environment conservation and sustainable development.

Nature conservation requires as humans to be conscious of their role in the sustainable development of ecosystems. Higher investment and extended actions are called to

achieve the SDGs for "*the blueprint for a more resilient and prosperous world*" as mentioned in UN The Sustainable Development Goals Report 2024 [42].

In this context, human awareness and ecotourism could be a tool to provide environment conservation and sustainable local development [10].

In the developing countries, ecotourism is a suitable solution to protect natural environment and also for improving the level of the sustainable development indicators [29].

The triad "ecotourism- natural resource conservation and local livelihood" is the most discussed problem globally at present. However, the literature is still not so rich in sufficient evidence about how ecotourism is functioning. Rarely, there are found studies on the impact of ecotourism on the mitigation of climate change effects, carbon footprints, and about good governance [28].

Ecotourism development needs awareness, learning, and involvement of the community in ecosystems to lead to satisfactory economic, social and environmental benefits [15].

Other authors consider that the conservation goals require to work outside recreation and nature-based tourism and to take into account both protected areas, tourism industry items (accommodation, boarding, transportation, recreation activities) and locals who carried out the livelihoods in the surrounding regions as it happens in Costa Rica where ecotourism is successful and with a high contribution in the economy [9].

The European Union pays a special attention to ecotourism which is considered one of the driving factors to a "Green Europe" by 2050. Ecotourism market has a large offer which includes many attractions among which the most important ones are: "marine zones for sun and beaches, national parks and other parks with protected status, biodiversity, local cultures and traditional protectors of natural environments".

The demand of ecotourism comes from two categories of tourists:

(i)the lovers of nature tourism and ecotourism interested in a variety of natural and cultural resources, and

(ii)from those who are keen to have rich natural, cultural or historical experiences.

Therefore, ecotourism itself could have its own alternatives: a sustainable tourism, a responsible tourism, a soft tourism or a green tourism [5].

In the EU vision, the nature tourism has the following niches:

-*Wildlife watching*, preferred especially by British, German, French and Dutch tourists who are keen to visit African countries for safaris destinations for observing wild animals and their habitats.

-*Bird watching* is also very popular among the Europeans manifesting passion for leisure and desire to experience travelling and visiting the main African, Asian and Central/South American country destinations where there is a real bird paradise.

-*Ecotourism* as such in the middle of nature, helping the environment and biodiversity conservation.

-*Walking tourism* is largely practiced by Europeans who love to stay active during their vacations, week-ends practicing trekking, hiking.

-*Cycling* is a specific form of tourism which characterize the British, German, Dutch people, but during and after the pandemic of Covid-19, this sort of ecotourism has become more popular not only in the cities but also on unpaved roads in many other countries.

-*Fishing* is another alternative of eco-tourism practiced by the lovers of this sport. However, fishing is done respecting some rules regarding the fish species, the amount of fish which could be captured and the place where this sport could be practiced.

-*Adventure tourism (Adrenaline tourism)* is practiced by the people keen to enjoy adventures, the experience of discovering new landscapes in different parts of the world.

-*SAVE tourism* (Scientific, Academic, Volunteering and Educational) consists of a large range of activities which involve both high and less qualified people interested to enlarge their knowledge, to develop

collaborations, friendships, to be helpful and to deliver training and skills.

-*Community-based tourism* is desired especially by the Germans, British, French, Spanish, Dutch and Swedish travellers who are interested learn about new cultures. In general, they travel in small groups or individually, many times belonging to *SAVE* sort of tourists.

-*Sun and beach tourism* is in a continuous expansion in locations away from mass tourism, to enjoy new experiences [5].

Due to Covid-19 pandemic, nature tourism in the protected areas has flourished and offered many opportunities and advantages: ecological recovery and restoration; regeneration; visitors' reflection on the travel and experience; resilience and recognition of the value of the tourism destination; a higher awareness and responsibility in protecting natural environment [5].

In Romania, tourism has registered a good dynamics during the last decade both in terms of tourist arrivals and overnights stays, the demand being met by offer and tourism proved to be an efficient of the economy. A large variety of tourism forms in practiced in Romania, ecotourism being included grace to the country varied relief and beautiful landscapes [19].

Ecotourism is for long time seen as an alternative for leisure, adventure, having beneficial effects on human body health and also as an alternative to improve the knowledge about the natural environment and especially connected to sustainable development of the local rural communities [30, 36, 31].

In Romania, ecotourism has registered a higher and higher attraction which has been intensified starting from the year 2020 when the pandemic of Covid-19 has emerged. It was one of the most attractive form of tourism when people revised their attitude towards nature which offered them a secure place to spend their vacations and week-ends, to rediscover the beautiful landscapes of various regions of the country like the seashore, the mountain areas and also the Danube Delta. That year rural tourism, ecotourism and agri-

tourism have been alternatives chosen by many tourists [34].

In this context, the purpose of the paper is to analyze the status of ecotourism in the Danube Delta and quantify in what measure in the year 2023 versus 2019, the year of the tourism peak in Romania, it has had a positive trend, which where the influencing factors and what has be done to sustain tourism in this territory of the country.

MATERIALS AND METHODS

The study required to collect information on the main aspects of ecotourism (definition, principles, niches, "involved actors", actions, legislation etc., which were classified and the main important ideas have been structured and explained.

The empirical data were picked up from National Institute of Statistics regarding the main indicators characterizing tourism in the Danube Delta and the city of Tulcea: *tourism offer* in terms of the type and number of units with function for accommodation tourists, number of places, and accommodation capacity; *tourism demand* in terms of tourist arrivals and overnight stays by their origin (residents and foreigners), and *tourists* who applied to use the packages offered by tourism agencies in the Danube Delta.

The methodological tools included: descriptive paragraphs, statistical analysis and processing of the data using fixed indices for evaluating the difference of the indicators level in 2023 versus 2019, the year when tourism reached the highest performance; regression equations for showing the dynamics of tourist arrivals and overnight stays, R square determination coefficient, graphical illustration for a better understanding of the phenomenon, and tabled presentation of a part of the results.

The study summarized the key aspects concerning the economic, social and environmental impact of ecotourism and also presented the actual challenges nature tourism is facing in the Danube Delta.

The results of the data processing have been illustrated in suggestive graphics as well as in

tables, accompanied by suitable comments and interpretations.

RESULTS AND DISCUSSIONS

The Danube Delta is part of the UNESCO World Heritage and it is considered the second largest and best preserved of Europe's deltas. It has a surface of 2,200 square miles, of which 83% are in Romania and the rest in Ukraine [27].

The climate is of a temperate continental type, with an average annual temperature of 11°C (-1°C in January and $+22^{\circ}\text{C}$ in July), and the average annual precipitations being around 350mm. Therefore, climate is characterized by small rainfalls influenced by proximity to the Black Sea and the humidity is given by the inland lakes and small waterways.

The Delta is a low alluvial plain, mostly covered by wetlands and water, but it also includes many canals bordered by willows and reeds, floating islands, lakes, sand dunes, subtropical forests, pastures, which allow tourists to discover the charm of the beautiful magic nature landscapes and biodiversity and human settlements.

The Danube Delta hosts 23 natural ecosystems, but the dominant environment is the aquatic one represented by wetlands, followed by terrestrial environment on the higher grounds of the continental levees, where xerophile ecosystems have also developed [44].

Having adequate conditions and being situated on major migratory routes, the Danube Delta is a good place, areal "magnet": for birds nesting and hatching and also for various wild animal species.

The Danube Delta is home for hundreds of bird species, for many sorts of fishes and also for animals (wildcats, foxes, wolves, boars or deer). Altogether, it is said that the Danube Delta is home for 3,450 animal species and 1,700 plant species.

The Danube Delta Biosphere Reserve has the third largest biodiversity in the world (over 5,500 flora and fauna species) [41].

All these reflects the unique biodiversity of the Danube Delta among the Europe's wetlands [27].



Map 1. The map of the Danube Delta
Source: Romaniatourism.com, 2024, [27].

Population

Human life is running mainly in traditional villages, but also in small cities where the population of diverse ethnicities coexists in good relationships and friendship preserving their traditions, customs and culture.

The population living in the Danube Delta accounts for about 15,000 inhabitants in its 28 villages and Sulina Town. The residents are distributed along the three main waterways: Chilia, Sulina and Sfântul Gheorghe. The local population is dealing with fishing at a small-scale and low-intensity, cattle growing and beekeeping [27]. The city of Tulcea is the starting point for exploring the Danube Delta and its branches: Chilia, Sulina and Saint Gheorghe.

Sulina is the key commercial enter and freeport where about 3,500 ships are handled annually. Other important localities are Chilia Veche, Sfântu Gheorghe, 1 Mai, Unirea and Independenta

The Danube Delta has a **high value cultural heritage** coming from its old history and being represented by Greek and Roman settlements. Also, Turkish influences could be seen in the villages surrounding the Delta [8, 27].

Ecotourism concept in Romania and the Danube Delta

In Romania, the Association of Ecotourism in Romania (AER), aligned the concept, principles and guidelines of ecotourism to the standards issued by The International Ecotourism Society [41].

AER defined ecotourism as a type tourism which offer the tourists to experience and enjoy nature and local traditions and offer the locals an alternative for a better life under the following conditions:

- To assure the conservation and protection of the natural environment
- To become aware that the natural environment must be respected and preserved
- To involve human resources to contribute to the development of a sustainable eco-tourism
- To diminish at minimum the negative impact on the natural and socio-cultural environment [8].

The principles of ecotourism in Romania are promoted by the Association of Ecotourism in Romania (AER), and must be respected by the stakeholders creating ecotourism products and by those who develop ecotourism strategies. Also they have to be respected by visitors who are called to contribute to the environment and biodiversity preservation and sustainable development.

(i)*Focus on natural areas*- where tourists could enjoy a direct and personal experience getting knowledge about the natural landscapes geomorphology, biology, and local culture.

(ii)*Interpretation of the ecotourism product* means to make tourist to become aware that the nature should be protected and the local traditions and biodiversity should be preserved. This is based on the tourists' understanding of the natural and cultural values of the visiting destinations, using correct information before their arrival and appealing to high quality tour guided services during the tourism experience. Ecotourism programs must respond to this principle granting the local communities' access to information as well as to the visitors.

(iii)*Environment sustainability*- means that the developed activities in tourism in the middle of nature have a low impact on the

natural environment, assure conservation of environment factors and preservation of the beauty of nature and landscapes and also of the cultural heritage.

(iv)*Ecotourism assists in the preservation of nature*-by involving local population and tourists in providing activities destined to preserve the natural areas, for example: participating in the restoration of the natural sites, offering financial aid and concrete work etc.

(v)*Ecotourism as constructive input in the development of local communities* which could led to increased incomes coming from tourism activities by buying local commodities and services, using guided tours and local amenities, enjoying contact with the local events, traditions and gastronomy. This could raise the living standard of the local population, the development of the communities.

(vi)*Ecotourism must raise the tourists' degree of satisfaction* which is essential for a good promotion of the experiences lived in the Danube Delta to the future potential visitors.

(vii)*Ecotourism marketing* should meet the visitors' expectations regarding correct and useful information, and unforgettable experiences in the natural environment of the visited areas, should prove the hospitality of the locals and led to a high satisfaction degree of the visitors [8].

Eco-tourism forms in the Danube Delta are of a large variety as follows: visits to the existing historical sites, taking wildlife photos, admiring the sun rise and sun set, bird watching (more than 300 migratory and resident birds species, among which the most important are: eagles, egrets, geese, cranes, ibises, cormorants, swans and pelicans), fishing (more than 160 fish species of fresh and salt water like: carp, pike, cat fish, carasius, perch etc), kayaking, canoeing, biking, having boat tours in the fishermen's boats on the canals, having accommodation in various units (villages, guesthouses etc), tasting traditional fish dishes and wines, taking part to events (International Independent Film Festival, International Rowboat Festival etc), and learning about the

stories on the world and Olympic champions [8].

Ecotourism offer and demand in teh Danube Delta and Tulcea City

Number of units with reception function for tourists' accommodation

In 2019, the Danube Delta and Tulcea had together 254 units for tourists accommodation representing 3.02% of the total units of this type in Romania. In 2023, their number increased to 493 units being by 94% more numerous than in 2019 which reflects a higher offer in accordance to a larger tourist demand.

From a structural point of view, in 2023, the highest share accounting for 41.5% belonged to apartments and rooms to rent, followed by bungalows with 23.4%, tourist villas 14.8%, hotels 8.2%, tourist houses 5.2%, campsites 2.5%, and the remaining for other types of lodging units.

Figure 1 presents the structure of accommodation units for eco-tourists in the year 2019 while Figure 2 shows the structure of accommodation units for eco-tourists in the year 2023.

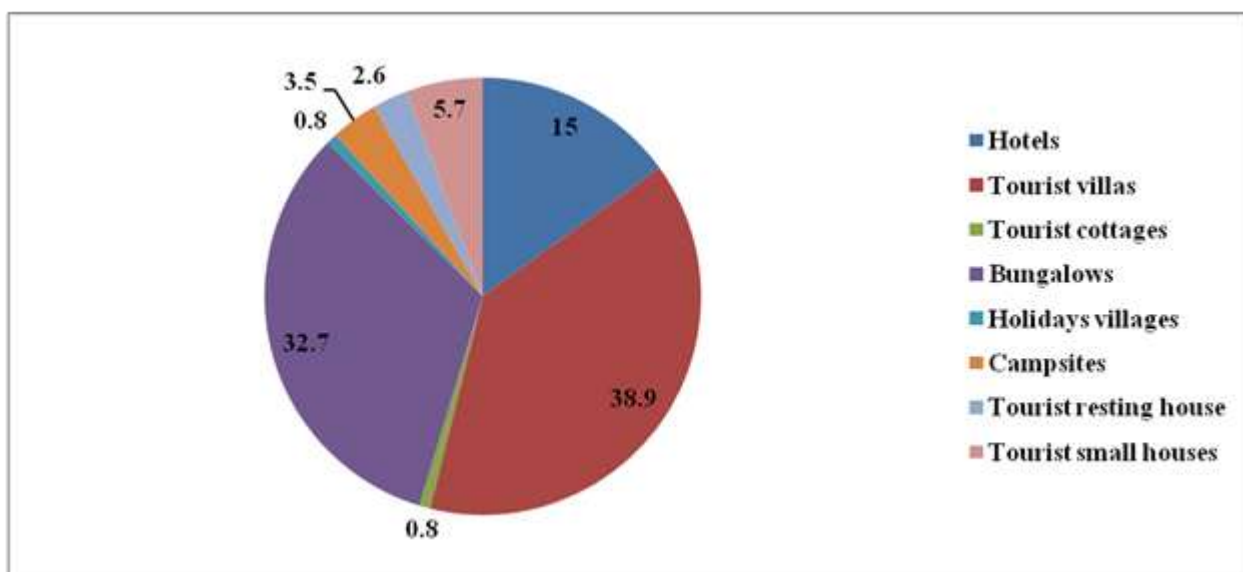


Fig.1. Structure of units with function for tourists' accommodation in the Danube Delta and Tulcea in the year 2019 (%)

Source: Own design based on the data from [11].

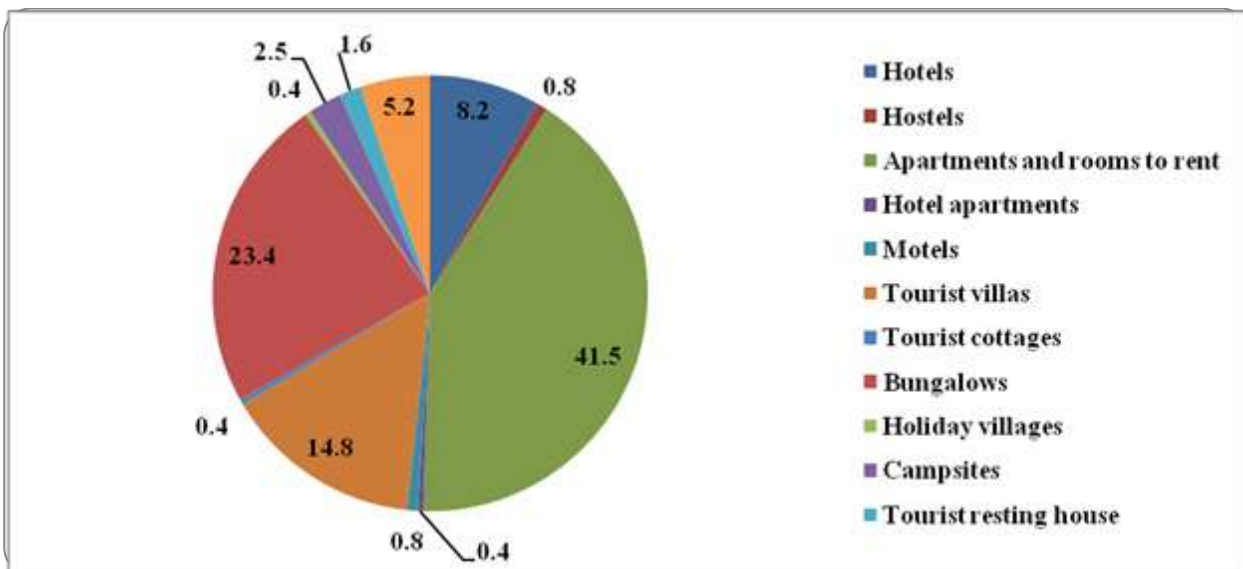


Fig.2. Structure of units with function for tourists' accommodation in the Danube Delta and Tulcea in the year 2023 (%)

Source: Own design based on the data from [11].

Accommodation capacity in the Danube Delta and Tulcea City

While in Romania, in 2023 there were 433,487 places in the units with tourist function for accommodation, by 18.58% more

than in 2019, in the Danube Delta and Tulcea, in 2023 there were 10,942 places by 51.96% more than in 2019, reflecting a higher growth rate than at the national level (Table 1).

Table 1. Tourism accommodation capacity in Romania and in the Danube Delta and Tulcea (Number of places)

Accommodation capacity	2019	2023	2023/2019 %
Romania	365,562	433,487	118.58
The Danube Delta and Tulcea	7,205	10,942	151.86
Share of the Danube Delta and Tulcea in Romania (%)	1.97	2.52	+ 0.55

Source: Own calculations based on the data from [11].

There are many types of accommodation units (hotels, floating hotels, B and Bs, private houses especially in Chilia Veche, Crişan, Dunavăţu de Jos, Gura Portiţei, Isaceea, Mahmudia, Maliuc, Murighiol, Mila 23, Samova, Sfântu Gheorghe, Sulina, Tulcea, Turcoaia, Uzlina. The best hotels are New Lebada, Danube Delta Resort, New Egreta, Delta Boutique & Carmen Silva, Green Village.

Also, in Crisan, Murighiol, Sfantu Gheorghe, Shores of Lake Rosu there are campsites [27]. In the Danube Delta, in tourists' opinion, it is still needed to increase investment in accommodation and road infrastructure, as well as in ecotourism promotion [6].

Other authors found that visitors are satisfied by tourism accommodation in terms of accessibility and hospitality, but they are unsatisfied by the low promotion and image, the lack of local food and souvenirs shops, recreational activities and also it is a low transport service [13].

Regarding accommodation in the Danube Delta, most of tourists prefer accommodation in hotels, followed by boarding houses and tourist villas as it happened in the Razim-Sinoe area. The peak of tourists is in summers (July-August) and regarding the foreign tourists they come especially from Germany, Italy and Austria [17].

Ecotourists arrivals in the Danube Delta and Tulcea

In the pre-pandemic years, in the Danube Delta there were organized group tours for

visiting the main attractions and also the seaside of the Black Sea and wine tasting at Murfatlar Vinery [18].

The year 2019 marked the peak of tourism in terms of tourist flows, overnight stays, length of stay in Romania but also in many other country destinations. In the years before 2019, tourist arrivals were concentrated much more on visiting the capital of Romania, the cities of Transilvania, the mountain and seashore resorts, the spa resorts and less the Danube Delta [20].

The year 2020 was the worst for the Romanian tourism due to the imposed movement restrictions during the Covid-19 pandemic and a short period less or without restrictions [22, 23].

During the Covid-10 pandemic in Romania, tourists have become more oriented to nature tourism and discovering the beauty of their own country, and one of their preferred destinations was the Danube Delta [25].

In 2023, the number of eco-tourists arrivals in the Danube Delta and Tulcea represented 82.31% of the total arrivals in 2019, which was the best year for tourism in this part of the country.

In case of Romanians, their arrivals in 2023 accounted for 87.68% of the 2019 level.

But, in case of the foreign tourists, in 2023 their arrivals represented only 43.82% of the number of arrivals recorded in 2019.

Also, in 2023, the share of arrivals in the Danube Delta and Tulcea represented was 0.98 % of the total tourist arrivals in Romania.

The Romanians' arrivals in the Danube Delta and Tulcea in total arrivals of Romanians at

the national level was 1.08%, and in case of foreign arrivals only 0.42% (Table 2).

Table 2. Tourist arrivals in the Danube Delta and Tulcea in 2023 versus 2019 according to their origin (Number)

Tourist arrivals	2019	2023	2023/2019 %
Total The Danube Delta and Tulcea	166,411	136,979	82.31
Romanians	146,006	128,031	87.68
Foreigners	20,405	8,943	43.82

Source: Own calculations based on the data from [11].

The year 2020 when the Covid-19 pandemic emerged, a big fall was carried out in the number of arrivals both in case of Romanians and foreign visitors. Also, after a short

recovery, in 2023 the number of foreign tourists declined due to the impact of the hostilities in the proximity of Romania's border (Fig. 3).

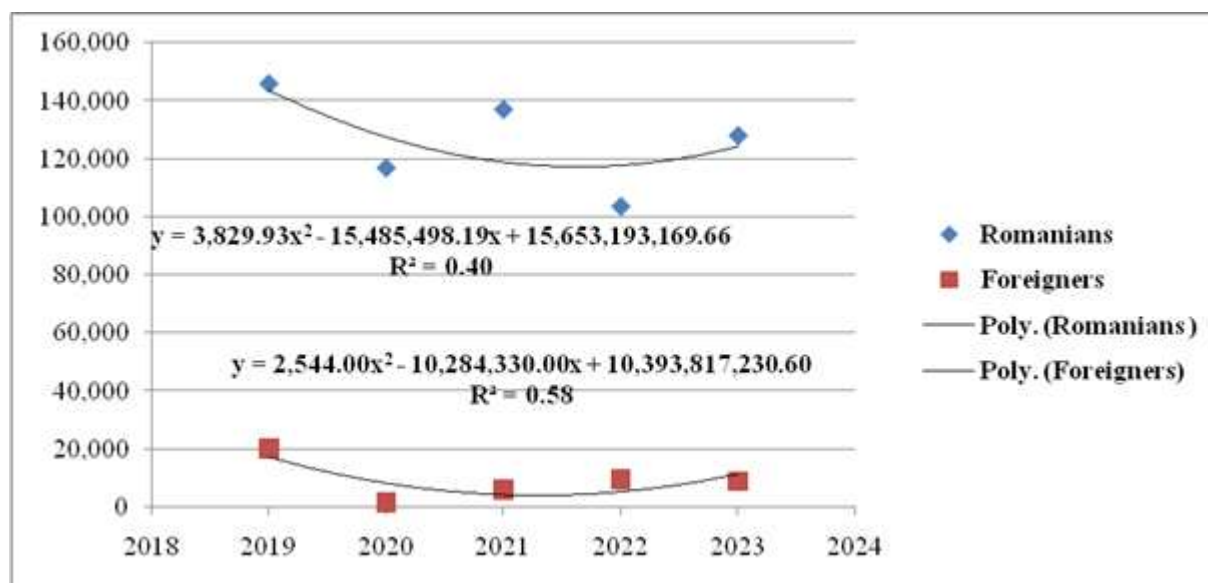


Fig. 3. Dynamics of tourists arrivals in the Danube Delta and Tulcea in the period 2019-2023

Source: Own design based on the data from [11].

After a slight recovery of the demand in the year 2021 and 2022, starting from the year 2023 and continuing in 2024, it has become to be deeply influenced by the war in Ukraine [12].

In 2024, when the hostilities have been intensified close to the border of Romania, the tourist arrivals have drastically declined. The guest houses situated at the border with Ukraine suffered a loss of 65%, while the areas situated in the natural reservation had a lower loss.

The number of overnight stays also decreased by 40%, the most affected being the tourism operators located in Chilia (-65%).

In Tulcea City, some tourism operators are facing 30% loss of arrivals in the year 2023 versus 2022.

The number of tourists in the Danube Delta decreased by 2,025 by 15 October 2024 due to the RO-alert messages during the nights which create panics. Also, the number of foreign tourists failed dramatically [26].

Ecotourists' overnight stays in the Danube Delta and Tulcea

In 2023 versus 2019, the number of stays in the Danube Delta and Tulcea represented 74.66% of the total stays, 80.12% for Romanians and only 40.28% for foreigners stays (Table 3).

Table 3. Tourist overnight stays in the Danube Delta and Tulcea in 2023 versus 2019 according to their origin (Number)

Tourist Overnight stays	2019	2023	2023/2019 %
Total The Danube Delta and Tulcea	380,375	286,255	74.68
Romanians	333,885	267,526	80.12
Foreigners	46,490	18,729	40.28

Source: Own calculations based on the data from [11].

Figure 4 shows much better the dynamics of the number of overnight stays by tourist category.

The year 2022 was unfavorable as the stay of the Romanians deeply declined. In case of

foreign tourists, the high decline was registered in the year 2021 and also in 2023. The causes are the Covid-19 pandemic and nowadays the war in Ukraine.

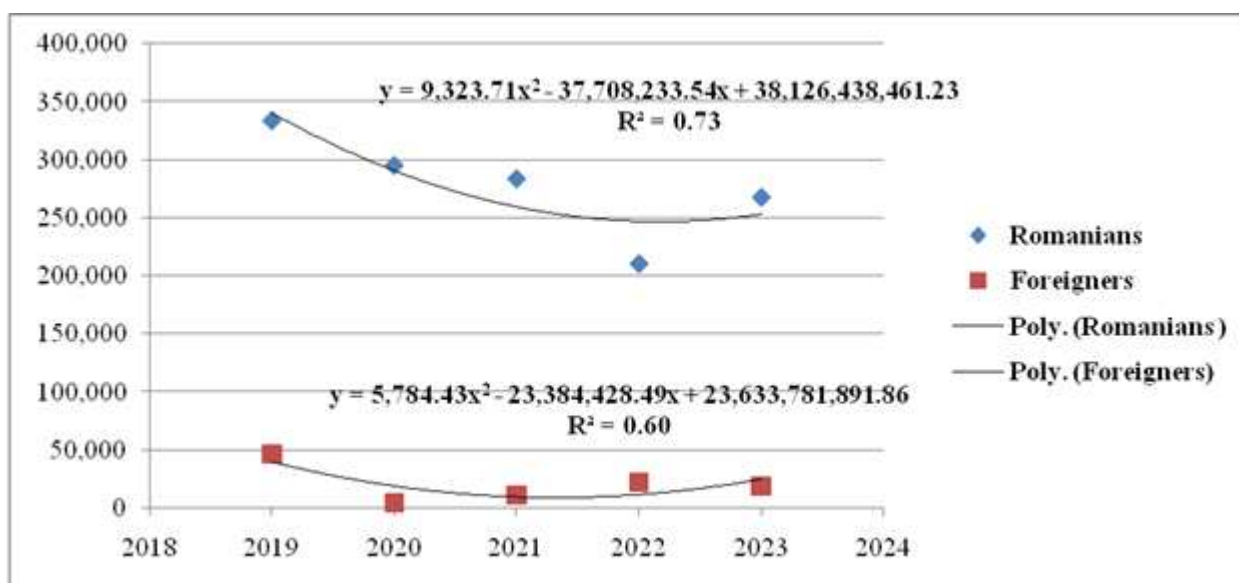


Fig. 4. Dynamics of tourists overnight stays in the Danube Delta and Tulcea in the period 2019-2023

Source: Own design based on the data from [11].

Number of Romanian tourists participating in tourist internal actions organized by tourism agencies also declined dramatically in the Danube Delta for the same reasons. In 2022, there were only 7,404 Romanian tourists who applied for such activities compared to 14,147 tourists in 2019, meaning by 47.7% less [12].

In 2023, it was observed a deep decline by 42% in the number of tourists in the Danube Delta Compared to 2022 caused by the hostilities running in Ukraine [7].

Impact of ecotourism in the Danube Delta

Ecotourism involves three aspects: economic, social and environment benefits.

From an economic point of view, ecotourism brings important income to the local population involved in tourism business like the owners of various accommodation units,

restaurants, shops, boats, craftsman, tourist guides etc.

Also, fishing attracts the lovers of this type of sport in the Danube Delta [16].

In the Danube Delta, important economic and social benefits were obtained by strategic measures which joined the efforts of small industries and traditional craft development and led to a good environment conservation and biodiversity preservation and increased the income sources for the local communities. Small revenues are obtained from the tourists who desire to visit the Natural Reservation. For doing this, they need a permit to enter the Danube Delta Biosphere Reserve. This permit should be purchased from the Danube Delta Biosphere Reserve Administration (ARBDD) or from the travel agencies and hotels in Tulcea. This permit is available for the

tourists who run low activities on the ground or water in specific zones established by ARBDD.

A free permit is available for scholars, students, pensioners, war veterans, disabled

persons, for the persons living in the Danube Delta in the proximity of the reservation.

The entrance fees to visit the Danube Delta Biosphere Reserve (DDBR) are shown in Table 4.

Table 4. Official fees for permit to visit DDBR

Type of tax	Fee per tourist	Fee per car	Fee per boat
One day permit	Lei 5	Lei 10	-
7 days permit	Lei 15	-	Lei 20
One year permit	Lei 30	Lei 100	Lei 100
One night accommodation	Lei 50	-	-
6 nights accommodation	Lei 300	-	-
Recreational fishing	-	-	-

Source: The Danube Delta Biosphere Reservation, [39].

For fishing and hunting, tourists must purchase separate permits.

For visiting the Danube Delta Biosphere Reserve (DDBR), a tourist needs to apply for a multi-day trip which enable him/her to see to enjoy admiring the Delta's flora and fauna. Also, the best solution for experiencing more remote areas and wildlife is to apply for a private boat or a kayak either as a guided tour or an independent travel.

During their stay in the Danube Delta, tourists need to have at their disposal drinking water mosquito repellent [27].

Tourists visiting the Danube Delta Biosphere Reserve have the opportunity to take part to various scientific organized by DDBR, occasion on which they could be informed and get useful information to enrich their knowledge.

In 2023, the DDBR organized 28 actions for celebrating the environment events such as: The world Days of the Wetlands, The Water Day, The Biodiversity Day, The Danube Day, The Earth Day, The World Animals Day. To these events took part 531 scholars and teaching staff from the schools situated in the perimeter of the DDBR.

For visitors' information and ecological education, the DDBR puts at their disposal information centers situated in Tulcea, Crişan, Sulina, Chilia Veche, Murighiol, Sf. Gheorghe, Gura Portiţei.

The number of visitors in the DDBR in 2023 accounted for 5,621, of which Romanians

4,016 (72.4%) and 1,695 foreigners (17.6%) [38].

Maintaining the production of rural traditional food made of natural ingredients, rustic cooking manner in the household, specific taste, flavour, and offering it to tourists could be a tool to a sustainable ecotourism and a greater satisfaction.

This could be achieved by combining ecotourism with agri-tourism in the rural areas which could bring additional income to the residents and better satisfy visitors' needs [3, 4].

Local traditional products are of high interest for visitors in their tourist destinations. This is because these products represent the results of the specific gastronomic traditions, are made of local natural raw materials, which are processing using traditional manufacturing techniques, are unique products concerning their aspect, color, flavor, taste. This niche of ecotourism including tasting of traditional products and drinks brings more satisfaction to tourists and also brings additional incomes to local producers and communities [32, 33, 37].

From a social point of view, ecotourism is beneficial for the local population offering jobs and important incomes to raise the living standard. However, in the Danube Delta like in many other tourism destinations in Romania, there is a lack of personnel [21].

It is very important as in the HoReCa field the entrepreneurs to employ qualified personnel

who will be able to offer high quality services. This requires the intensification of training and development of human resources working in tourism [2].

Another social aspect of ecotourism is the fact that tourists are satisfied of experiencing new places and getting knowledge about nature plant and animal universe, enriching their spiritual level and also getting fresh air in their lungs, satisfying their eyes admiring the beautiful landscapes.

Tourists pass through a learning experience and the satisfactory results will determine to be respectful for the nature treasures and to sustain their conservation and preservation.

It is clear that taking into consideration the residents' opinions, it is possible to develop efficient ecotourism strategies [14].

From a cultural point of view, tourists could enjoy admiring:

-Local Lipovan architecture of the houses mainly in the localities Letea, Sarichioi and Mila 23.

-Fishing has a long tradition in the Danube Delta, being an occupation of the local population for centuries.

-Cuisine is based mainly on fish, the Danube Delta being well known for delicious fish dishes prepared in different manners often accompanied by a variety of ingredients.

The local Fisherman's Borscht, Danube herring, grilled sturgeon fish and zander croquettes, Saramura, big chunks of grilled carp in seasoned brine, served with polenta and garlic sauce, accompanied by a glass of Aligote, Muscat or Merlot wine could be a novel unforgettable gastronomic experience.

-Music and dance represent other aspects of the local culture and reflect the ethnic mosaic who lives in this territory. Tatars, Greeks, Turks or Lipovans are several nationalities who live in a complete harmony and understanding.

-Traditional folk suits - belong to history and show the peculiarities of the ancient culture of the nationalities living in this part of Romania. Therefore, visitors could admire a large variety of clothes and costumes belonging to each ethnic group [43].

From the environmental point of view, the behavior and attitudes of the local residents

and visitors will change and be more grateful and respectful for the benefits in terms of mental and physical health for living in a clean nature, preserving its beauty and assuring the conservation of the environment factors: soil, water, wildlife, landscapes, fighting against pollution, wastes and negative impact.

Strategy for sustainable tourism development in the Danube Delta

The Danube Delta Integrated Sustainable Development Strategy of the Danube Delta (2030) signed by Ministry of Regional Development and Public Administration and the International Bank for Reconstruction and Development provides important measures to sustain the development of tourism in the Danube Delta [45].

Also, important EU funds are destined to financially support the small business in ecotourism offering maximum Euro 70, 000 Euro or Euro 200.000 Euro for Authorized Physical Persons, Ltd companies and small enterprises making business in Delta Dunarii (from guest houses and manufacturing to IT and medical assistance). It is about the Submeasures 6.2 si 6.4 within the National Program for Rural Development (PNDR) 2014-2020.

The eligible companies are: Authorized Physical Persons, individual companies, family companies, and agricultural companies. and they must have their seat on the territory of the Danube Delta.

The objectives for which the funding is available are: production activity, traditional handicrafts, tourist services (accommodation, camp sites, leisure activities, boarding, agri-tourism, catering etc), medical assistance, veterinary medical assistance, consulting, juridical services, IT services etc) [35].

Danube Delta ITI Social Entrepreneurs project for labour force integration, combating poverty

Also, In Romania, it was launched the Project "Social Entrepreneurs ITI the Danube Delta" by National Council of the SMEs in Romania. This Project is destined to integrate into the labour market the vulnerable persons and to fight against poverty by establishing social enterprises in the urban areas of the Danube

Delta for the period 2024-2027 The project is co-financed by the European Union through European Social Fund plus Program for Education and Employment 2021-2027 [1].

CONCLUSIONS

This research referred to ecotourism in the Danube Delta, a magnificent place where visitors could enjoy admiring nature and its treasures from the plant and wild animal world, and also enriching their knowledge and developing a respectful attitude for the natural environment and its beautiful landscapes.

The residents are good hosts offering the services that the tourists need: accommodation, delicious meals from the local gastronomy, boat tours on the Danube canals to observe the birds and wild animals.

Special entertainment is connected to traditional cultural events sustained by the rural population of various ethnic origin and to the scientific events celebrated by The Danube Delta Biosphere Reserve Administration.

Ecotourism has a beneficial impact on the stakeholders and local communities increasing their income and living standard, on one side, and also, on the other side, visitors have the satisfaction that they spent relaxing and interesting holidays in the middle of nature.

The number of tourists visiting the Danube Delta is not so high compared to other regions of Romania, but since the Covid -19 pandemic tourists have become aware of the benefits of nature and of the fact that environment and biodiversity must be preserved.

The most activities preferred by visitors in the Danube Delta are: bird watching, wildlife watching, cruises on the canals, fishing, tasting the specific local food based on fish, learning more about this natural paradise which is a proud for Romania.

The number of tourists increased in general, except the year 2020 due to the pandemic, and also in 2024 due to the war in Ukraine. This led to important losses in eco and agro-tourist business.

The offer in terms of accommodation units and places increased improving the comfort conditions, diversifying the facilities and activities as a reflection of the local hospitality.

In 2023, the number of units destined for visitors accommodation increased to 493 units being by 94% more numerous than in 2019. The highest share belongs to apartments and rooms to rent (41.5%), bungalows (23.4%), tourist villas (14.8%), hotels (8.2%), tourist houses (5.2%), and campsites (2.5%).

The capacity in terms of the number of places reached 10,942 beds, being by 51.8% higher than in 2019.

In 2023, the tourist arrivals accounted for 136,979 representing 82.3 % of the level attained in 2019, which was the best year for tourism. The Romanians are dominant with a share of 93.4%. However in 2023, Romanians weight accounted for 87.6% of the 2019 level, and foreigners' weight was only 43.8%.

The total overnight stays in 2023 was 286,255 by 25.4% smaller than in 2019. In case of Romanians, their stays represented 80% and in case of foreigners represented 40% of the level carried out in 2019.

In 2023, a number 5,621 tourists, of which 72.4% Romanians and 17,6% foreigners visited The Danube Delta Biosphere Reserve. For helping the sustainable development of the environment, biodiversity and local business in tourism activities and other non agricultural activities, *The Danube Delta Integrated Sustainable Development Strategy of the Danube Delta (2030)* offers financial support by means of Submeasures 6.2 si 6.4 within the National Program for Rural Development (PNDR) 2014-2020.

Also, the Project "*Social Entrepreneurs III the Danube Delta*", co-financed by the European Union through European Social Fund plus Program for Education and Employment 2021-2027 will be important for involving vulnerable persons into the labour market and combating poverty.

The main aspects for which more attention have to be paid in the future are: investments in infrastructure, assuring the labor force according to the requirements, diversification

of facilities and tourism activities, making the resident population to be aware of its role in the management of natural resources and in solving the community problems.

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