

THE DANUBE-AN INSTRUMENT FOR SUSTAINABLE DEVELOPMENT OF RURAL TOURISM. CASE STUDY: SOUTHERN DOBROGEA PLATEAU

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Abstract: *The rural environment of Southern Dobrogea has a diverse natural landscape and cultural heritage. The aim of this study is to define the specific activity of rural tourism along Danube river, between Ostrov and Ghindărești villages, as a solution for sustainable development of local communities from this area. Research methodology consisted in bibliographic documentation and field research to discover villages with local resources and traditional activities, and to identify capitalizing opportunities for those in rural tourism. By associating local socio-economic factors with natural resources and cultural heritage opportunities, the study proposes a polyvalent tourist trail along the Danube, in Southern Dobrogea. Management efficiency of rural tourism in this region is an important factor to socio-economic sustainability of local communities.*

Key words: *Danube, rural, sustainable, tourism, trail*

INTRODUCTION

Southern Dobrogea is a plateau unit in South-Eastern part of Romania, between Danube and Black Sea Coast, and it represents a territorial system well outlined [1]. The geographic analysis of the territorial system is essential for regional and local development, considering some cultural and socio-economic achievements, as rural tourism. The integrity and cohesion of the territorial system can be assessed by inter-conditionality of their components *environment-society-economy-infrastructure* [11].

The organization of geographical space within a territory must be analyzed from the point of view of the functional relationship between the resources and the possibilities for capitalizing through sustainable development scenarios, a support of population and its activities, with an essential role in the process of spatial planning [11]. The relationship between natural and cultural resources of the territory and their valorisation is the basis of any approach which aims the planning of the rural area [4,9].

The Danube region of Southern Dobrogea Plateau has a potential represented of the natural landscape, apparently monotonous, but with specific elements on some areas, where the traditional folk art, historical and archaeological sites, and Dobrogea's villages could attract tourists [1].

The integrative management of the agro-rural activities is an important factor contributing to the sustainable development of tourism [5,8,14] in the Danube region of Southern Dobrogea Plateau. Offering the support development of tourism, it will sustain the development of local communities [2,18], as component of the territorial system. The rural tourism can boost the economy of villages [12,16,19], can contribute to upgrading the infrastructure, can attract investors, if the residents of the rural area takes a favorable attitude, to be perceived correctly by tourists, who prefer this type of tourism, and whether the local authorities are involved enough in development of this profitable economic activity [20,21].

The aim of this paper is to define the tourist specific of villages along Danube from Southern Dobrogea Plateau by geographical analysis of natural and cultural heritage, and opportunities of valorisation for tourist purposes to the sustainability and the socio-economic efficiency of local communities in the rural environment.

MATERIALS AND METHODS

In order to identify main aspects of natural and cultural heritage, correlated with the potential of agriculture and infrastructure from villages along Danube of Southern Dobrogea Plateau, the research methodology is represented by bibliographic and map study, and field research.

The methodology proposed in this study for the evaluation of rural tourism potential is based on *the methodology for assessment of tourism potential in administrative-territorial units (ATUs) of Romania* [24], *the European tourism indicator system* [23], *other methods* [6]. Also, it applied *the method of multicriteria analysis* [3] for the evaluation of tourism potential based on 7 criteria, each with 5 indicators (table 1). For each criterion it granted an weight between 10% and 30%, which by summing of them will result an absolute value of 100% equivalent for an ideal model of rural tourism.

Table 1

Criteria of rural tourism potential

Criteria		Weight(%)
C ₁	Natural geotourist resources (relief, climate, waters, flora and fauna, protected areas/natural landscape)	15
C ₂	Ethnocultural heritage (ethnic structure of inhabitants, folk costumes/folklore, traditional architecture, traditional techniques/crafts, traditional events/feasts)	15
C ₃	Traditional food products of the local community (agro-vegetable potential, agro-zootechnical potential, processing of vegetable products, processing of animal products, traditional cuisine)	30
C ₄	Anthropic sights and locations (archaeological sights, religious sights, museums, monuments/statues, other)	10
C ₅	Technical and material infrastructure (utilities, local services, accommodation, meals and catering, therapeutical/leisure infrastructure)	10
C ₆	Communications and transport infrastructure (telecommunications, roads, railways, airport, river transport)	10
C ₇	Traditional craft products of the local community (textile art, stone craft, wood craft, decorative arts, other)	10
Total		100

Source: own methodology

Thus, it will be done the hierarchy of administrative-territorial units (ATUs) according to the rural tourism potential, and their regionalization within the Southern Dobrogea Plateau. The analysis of the spatial distribution of tourist resources, linking them with local traditions and activities [7], processing of statistical data and the mapping [15] will emphasize the potential networks and nodes to optimization of a tourist trail along Danube based on sustainable management.

RESEARCH RESULTS

The territorial system from this study is represented of West part of the Southern Dobrogea Plateau, along Danube. It has an area of 1,100 km² (15.7% from total area of the plateau), 10 rural ATUs with around of 30,000 inhabitants (17% of rural population from the plateau) [13,22].

The features of 7 criteria which highlight the potential of tourism development in villages along Danube from Southern Dobrogea Plateau are described below.

C₁-*Natural geotourist resources* are represented of:

- hilly relief with low slopes (under 170m), and short valleys get down to Danube, typical for Oltina and Carasu tablelands, the wetland of Danube (with islands, arms and typical vegetation);

- temperate-continental climate with sub-Mediterranean influences in South part;
- Danube and lakes (*Bugeac, Oltina, Vedereoasa, Dunăreni*), hydro-mineral resources in *Topalu-Ghindărești* area with opportunities for therapeutic valorization;
- specific flora and fauna for steppe, forest-steppe and wetland;
- natural landscape (plateau, wetland of Danube), also some protected areas (*Canaraua Fetii, Esehioi* forests, *Aliman, Cernavodă, Movila Banului, Topalu* fossil points), bird protected areas (*Bugeac, Oltina, Vedereoasa*) (figure 2).

Thus, the Danube area of Southern Dobrogea Plateau is a rich region of natural resources. In this sense, the 10 ATUs belong 1st category, with reference values 40.84-50.05, representing between 12% and 15% of value of tourism potential (table 2).

Table 2

The reference values of rural tourism potential (on criteria)

ATUs	C ₁	C ₂	C ₃	C ₄	C ₅	C ₆	C ₇
Aliman	49.90	38.57	44.32	34.78	23.59	35.82	40.17
Băneasa	42.70	34.51	32.54	36.55	28.79	42.42	34.24
Ghindărești	49.90	44.44	37.44	33.11	34.51	39.61	38.32
Ion Corvin	40.84	39.87	35.27	41.17	28.79	40.29	34.24
Lipnița	47.04	36.23	43.20	45.64	35.40	43.88	38.17
Oltina	49.90	33.37	44.32	39.71	36.70	35.67	38.32
Ostrov	50.05	41.58	50.40	47.30	39.14	49.08	45.52
Rasova	41.84	38.72	39.05	31.92	31.65	37.38	40.32
Seimeni	49.90	37.16	36.47	29.06	38.41	37.38	38.32
Topalu	49.90	36.43	39.05	47.73	31.65	35.97	38.32

Source: own methodology

C₂-Ethnocultural heritage is represented by:

- Romanian inhabitants (more than 90% in 7 ATUs), Lipovans (around 95% - Ghindărești), Turks (more than 21% - Băneasa, around 7% - Lipnița), who highlight the multicultural feature of this area with specific customs [17];
- traditional folk costumes specific to Southern Dobrogea and Lower Danube Plain ethnic regions;
- Dobrogea traditional architecture of the country houses with Bulgarian, Turkish or Lipovan influences, with specific materials of building (wood, stone, adobe);
- traditional techniques for fishing or beekeeping, harvest of vineyards or orchards, and sheep breeding, events and feasts depending of specific (*Village Day, Harvest Day, Holydays* or *Ethnic Feasts* - Turks and Tatars, Lipovans).

For this criterion, 2 ATUs belong 1st category, with reference values 41.58-44.44, representing more than 12% of value of tourism potential. Other 8 ATUs belong 2nd category, with reference values 33.37-39.87, representing between 9% and 12% of value of tourism potential (table 2).

C₃-Traditional food products of the local community are represented of:

- the structure of land use comprises 41% of forests, 24% of waters, and 20% of agriculture areas of the plateau; of the agricultural areas, it remark vineyards (37%) and orchards (24%), with potential for agritourism, pasture areas (31%), especially for sheep and goats breeding, for processing of milk and meat; also, it's a favorable area for beekeeping (more than 34% of bee potential of the area) [13];
- it remarks the potential of vineyards, orchards, beekeeping, sheep and goats breeding; wineries (*Ostrov, Lipnița, Aliman, Rasova, Cochirleni, Topalu*), fishery potential (*Ostrov, Oltina, Aliman, Rasova, Seimeni, Ghindărești*), local producers of honey (*Ion Corvin, Rasova*), processing of dairy or meat (*Ostrov, Băneasa, Rasova, Topalu*);
- traditional local cuisine with fishery (villages along Danube) or ethnic specific (*Lipovans, Turks and Tatars*).

Thus, 4 ATUs belong 1st category, with reference values 43.20-50.40, representing more than 24% of value of tourism potential. Other 6 ATUs belong 2nd category, with reference values 32.54-39.05, representing between 18% and 24% of value of tourism potential (table 2).

C₄-Anthropic sights and locations (figure 2) are represented of:

- archaeological sights (*Capidava, Axiopolis, Altinum, Sacidava, Durustorum, Păcuiul lui Soare*);
- religious sights (*Dervent, Sf. Ioan Botezătorul, Sf. Ap. Andrei Cave, Sf. Astion and Epictet* monasteries, Băneasa - mosque, Ghindărești - Lipovan church);
- museum collections: *arts* (Topalu, Ostrov), *rural* (Ostrov, Oltina, Rasova), *winery* (Ostrov);
- monuments and statues in every village, and other sights as *Danube-Black Sea Canal* or *Carol I Railway Bridge* on Danube.

Cultural resources are diverse, thus 4 ATUs belong 1st category, with reference values 41.17-47.73, representing more than 8% of value of tourism potential. 5 ATUs belong 2nd category, with reference values 31.92-39.71, representing between 6% and 8% of value of tourism potential. 1 UAT belong 3rd category with reference value 29.06, representing less than 6% of value of tourism potential (table 2).

C₅-Technical and material infrastructure is represented by:

- utilities relatively well developed, the households have energy (more than 95%), water (65%-97%), sewage (20%-50%);
- every ATU has post office, bank office, medical office, and paved roads who connect all villages;
- infrastructure of accommodations and restaurants is represented of tourist complexes (*Domneasca, Curtea dintre vii*), camp (*Capidava*), wineries (*Ostrov, Lipnița, Aliman, Rasova, Cochirleni, Topalu*);
- leisure infrastructure is specific at *Domneasca* Tourist Complex, *Capidava* camp, around lakes area (*Bugeac, Oltina, Dunăreni, Vedereasa*), and water therapeutic resources in *Topalu-Ghindărești* area (figure 2).

Tourist infrastructure is less development, in this case, 7 ATUs belong 2nd category with reference values 31.65-39.14, representing 6%-8% of value of tourism potential, and 3 ATUs belong 3rd category with reference values 23.59-28.79, representing 4%-6% of value of tourism potential (table 2).

C₆-Communications and transport infrastructure (figure 2) is represented by:

- telecommunications, fixed and mobile telephony, internet and cable TV (in every village);
- roads along Danube: *DN3 Ostrov-Lipnița-Băneasa-Ion Corvin, DJ223 Ion Corvin-Aliman-Rasov-Cernavodă-Seimeni-Topalu* with connect at *A2 Highway*, to Bucharest or Constanța (Black Sea Coast); these roads are the basis of *proposal of the tourist trail along Danube* for this study, in order to sustainable socio-economic development of villages;
- in this area is only railway station at Cernavodă;
- the most closest airport is Mihail Kogălniceanu at a distance between 50 km (Topalu) and more than 100 km (Ostrov);
- it's not regular boats for passengers on Danube, but it's a small harbour at Ostrov, ferryboat (Ostrov), possibilities for small boats (Oltina, Rasova, Topalu, Ghindărești), and Cernavodă (harbour for cruise ships);
- in this crossborder area are border points at Ostrov and Lipnița.

For this criterion, 4 ATUs belong 1st category, with reference values 40.29-49.08, representing more than 8% of value of tourism potential, 6 ATUs belong 2nd category with reference values 35.67-39.61, representing 6%-8% of value of tourism potential (table 2).

C₇-Traditional craft products of the local community are represented of textile art, stone and wood craft, decorative arts and other crafts, that nowadays are kept less in villages as Rasova, Ostrov, Oltina, Ghindărești; specific of the study region are the stone fountains, some of XIXth Century, most numerous in Oltina area.

Thus, 3 ATUs belong 1st category, with reference values 40.17-45.52, representing more than 8% of value of tourism potential, 7 ATUs belong 2nd category with reference values 34.24-38.32, representing under 8% of value of tourism potential (table 2).

Centralizing the values for each criterion, results highlight 1 ATU belong 1st rank (Ostrov), more than 90% of value of tourism potential, 1 ATU belong 2nd rank (Lipnița), 7 ATUs belong 3rd rank, and 1 ATU belong 4th rank (Băneasa) (table 3, figure 1).

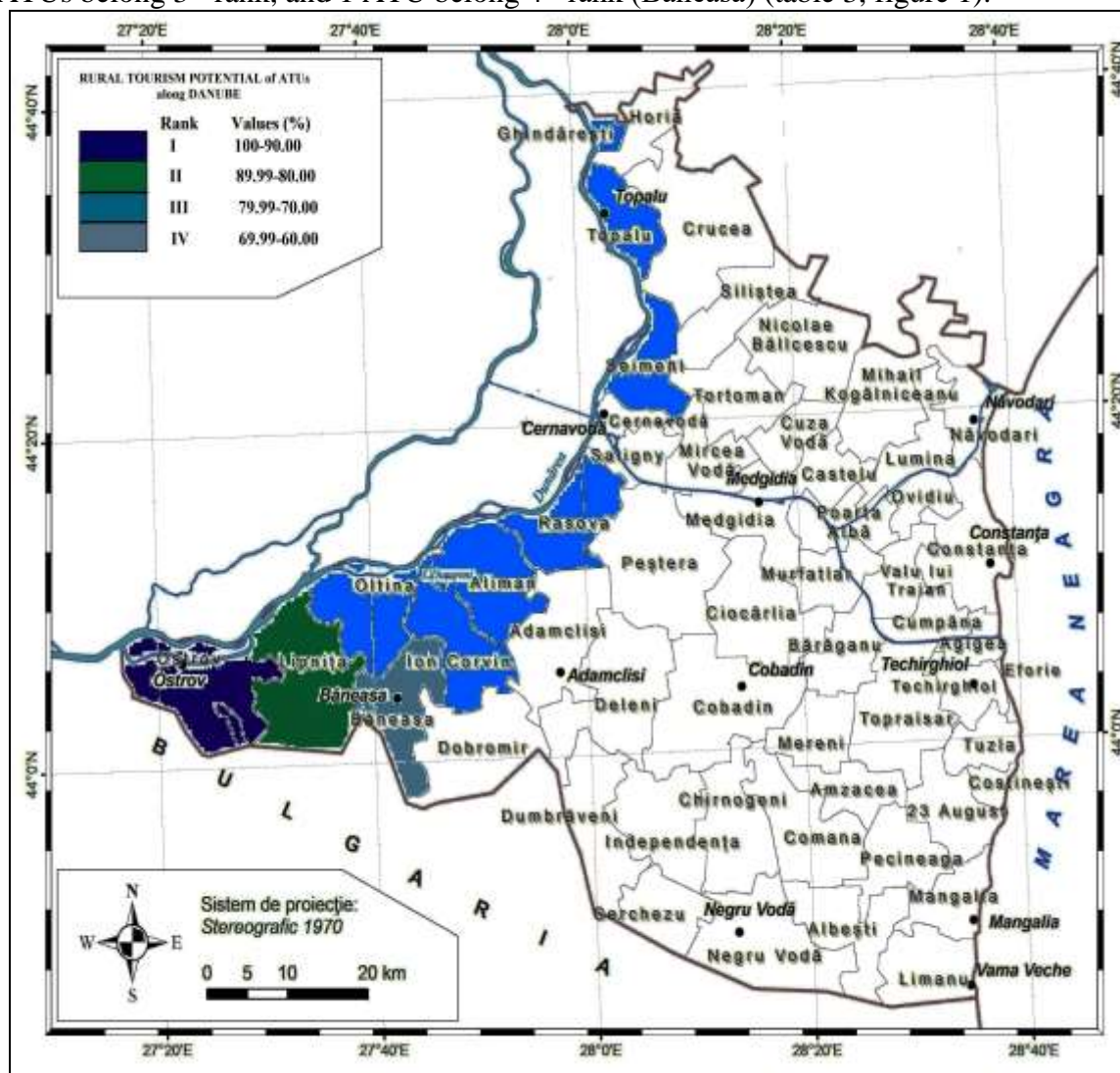


Figure 1. The value of rural tourism potential (%) of ATUs along Danube

Table 3

The hierarchy of ATUs according rural tourism potential

Rank	Value (%)	ATUs
I	≥ 90.00	Ostrov
II	80.00-89.99	Lipnița
III	70.00-79.99	Oltina, Aliman, Topalu , Ghindărești, Seimeni, Rasova, Ion Corvin
IV	60.00-69.99	Băneasa

Source: own methodology

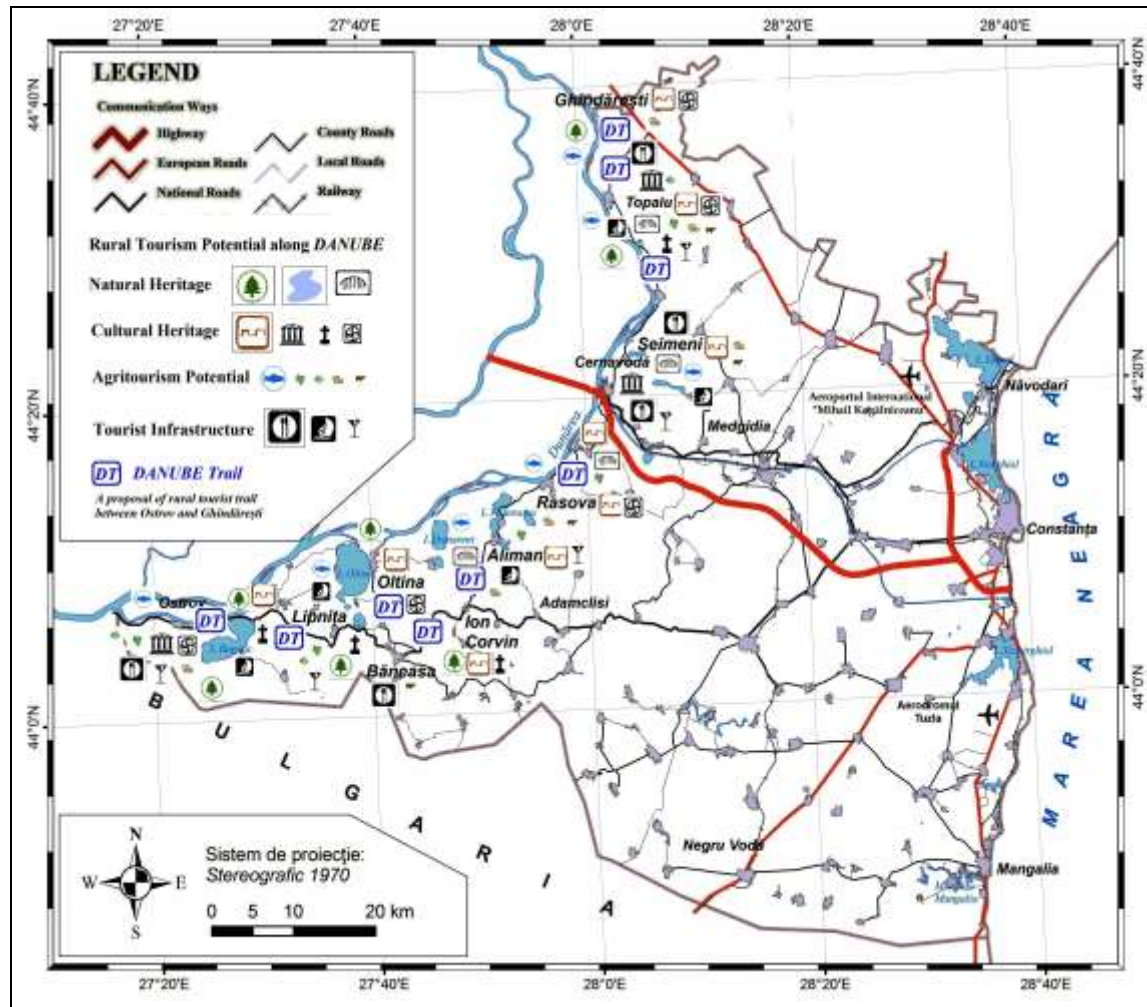


Figure 2. Danube Trail - a proposal of rural tourist trail along Danube

Presented data and figure 1 shows the territorial distribution of value of tourism potential at every rural ATU level. Thus, it is identify the Danube region with highest value of the rural tourism potential.

Efficiency of rural tourism management [8,10] in West part of Southern Dobrogea involves several measures as:

- organizing of *Local Centers of Promotion and Information for Tourism* in some villages (Ostrov, Ion Corvin, Topalu);
- clear signaling of sights and utilities for rural tourism, on the *Danube Tourist Trail* (figure 2);
- arranging the infrastructure for accommodations, food, sports and leisure, according with specific resources and local conditions, principles of tourism planning and sustainable development indicators;
- relaunching the craft customs in some villages;
- in some villages could be planning small harbours for leisure, nautical sports and cruise ships for visiting area;
- the promotion of local products, and *Danube Tourist Trail* (figure 2), for tourists who visit the seaside, and other tourists.

CONCLUSIONS

Tourism features of Danube region from Southern Dobrogea Plateau are the multicultural due to the majority Romanian population and ethnic groups inhabiting (Lipovans, Turks, Tatars) and diversified tourism potential (Danube, lakes, protected areas, monasteries, sights, traditional folk art, villages with local specific).

The Danube region of Southern Dobrogea Plateau has original and diverse tourist resources, but are only partially exploited, a reason being lack of accommodations infrastructure.

Developing on direction of tourist resources from the studied area reveal optimal conditions for valorization by organizing guesthouses in villages with local resources: *fishing tourism* (villages along Danube), *wine tourism* (Lipnița) *bee tourism* (Ion Corvin), *ethnogastronomy* (Lipovan-Ghindărești, Turk-Băneasa), *fishing and wine tourism* (Topalu, Rasova, Aliman), *polyvalent* (monastic, fishing and wine tourism - Ostrov).

The rural tourism relevance of Southern Dobrogea Plateau based on the combination of customs and traditions of local communities with other tourist resources, it can be integrated in **tourist trail along Danube** (figure 2), it will contribute to bioeconomic development, with sustainable cultural and socio-economic valences in this rural area.

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