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**THE WINE ROAD – A STRATEGY FOR PROMOTION  
AND SUSTAINABLE DEVELOPMENT OF WINE TOURISM.  
CASE STUDY: THE VINEYARDS FROM THE SOUTHERN  
DOBROGEA PLATEAU (ROMANIA)**

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*Abstract*

This article aims to promote the oenological potential of the Southern Dobrogea region, as well as how it can be improved. The Southern Dobrogea Plateau has an important international wine potential, due to the natural conditions (relief, soil, climate) especially in Murfatlar and Ostrov. There, the vineyards produce an impressive range of varieties for semi-dry, dry and liqueur wines. In order to establish these wine roads, several aspects were taken into account, among which are the accessibility of the tourists to the local heritage, the current infrastructure of the territory, as well as the possibility to organize and practice tourist activities in Southern Dobrogea. Thus, the Wine Road strategy can be considered a tourist attraction in itself, but also a development strategy through which one can capitalize on the natural, anthropic, cultural and monastic tourist heritage available to Southern Dobrogea.

**Keywords:** the Wine Road, natural heritage, vineyards, sustainable development, GIS, Southern Dobrogea, Romania.

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## **Introduction**

Romania has been a member state of the International Organization of Vine and wine since 1927, based on an oenological heritage recognized at european and global level, which is supported by the annual economic statistics. In our country, wine or oenological tourism is at an early stage compared to other European states that have a long wine-growing tradition with products of world quality (Soare et al., 2010).

The notion of oenology derives etymologically from the Greek "oenos" which means wine and "logos" which means science and translates as the science of wine. According to the law of Vine and wine (no. 244/2002) wine is a drink obtained by partial or complete alcoholic fermentation of freshly crushed or unshelled grapes or grape must.

The global wine production is about 260 million hl, an amount obtained from an area of about 7.8 million ha. The largest wine producing countries are Italy and France with 60 million hl and 50 million hl respectively, and Romania ranks 10th with an annual production of 5 million hl with an area of 243,000 ha (Cotea, 2009). In our country the vineyards registered a decrease in the area between 1990-2017 reaching 186,900 ha vines. However, in 2019 Romania ranked 5th in the European wine ranking and 6th in wine production after states like France, Italy, Spain, Germany and Portugal (Bisson, 2019).

The only project that supports the sustainable development of wine tourism in Romania is initiated by the Romanian government and is called the National Master Plan for tourism development 2007-2026 which aims to implement a political framework for the management and development of the tourism branch of viticulture. The main three objectives of this project are focused on increasing the visits of connoisseurs and wine buyers for scientific and recreational purposes, increasing the visits of tourists and traders inside wineries and vineyards to observe the process of wine production and tasting and implementing wine routes that connect different vineyards with local tourist attractions. Within this project, Murfatlar vineyard organized a Harvest festival in order to attract future potential tourists in October during the ripening period of grapes. The Wine Road represents an itinerary along a well-defined region or province that invites potential tourists to discover the products

and wines of the area, as well as the various activities that derive from them (Gatti, Incerti, 2017). The main reasons for traveling on these roads are the possibility of participating in wine-related festivals, visiting a local or regional museum to provide information on the history of vineyards and winemaking activity, tasting and purchasing wines as well as visiting vineyards. Tourists can also stay in agritourism hostels and experience local cuisine (Bruwer, 2002). A wine road must be completed by a map or brochure on which the tourist can follow the route, the sights and the offers of accommodation and food (Frochot, 2000). The first Wine Road was conceived in 1953 in Alsace (France) and covered 170 km. A study on the economic efficiency of the wine routes was subsequently carried out also in France, a country located first in wine production, where it was found that in order to attract as many tourists as possible the roads must represent a tourist attraction itself. In the vineyards of France most of the roads are designed around the tourist heritage where tourists can travel through different means of access (walking, car, bicycle) and where they discover a series of regional characteristics that identify the territory (Moran, 1993). Wine roads are considered multitematic areas that have as common characteristic wine (Pastor, 2006). In the Southern Dobrogea Plateau, the total number of vineyards amounts to 17,000 ha, which are concentrated in two main vineyards, namely Murfatlar and Ostrov (Popescu et al., 2012).

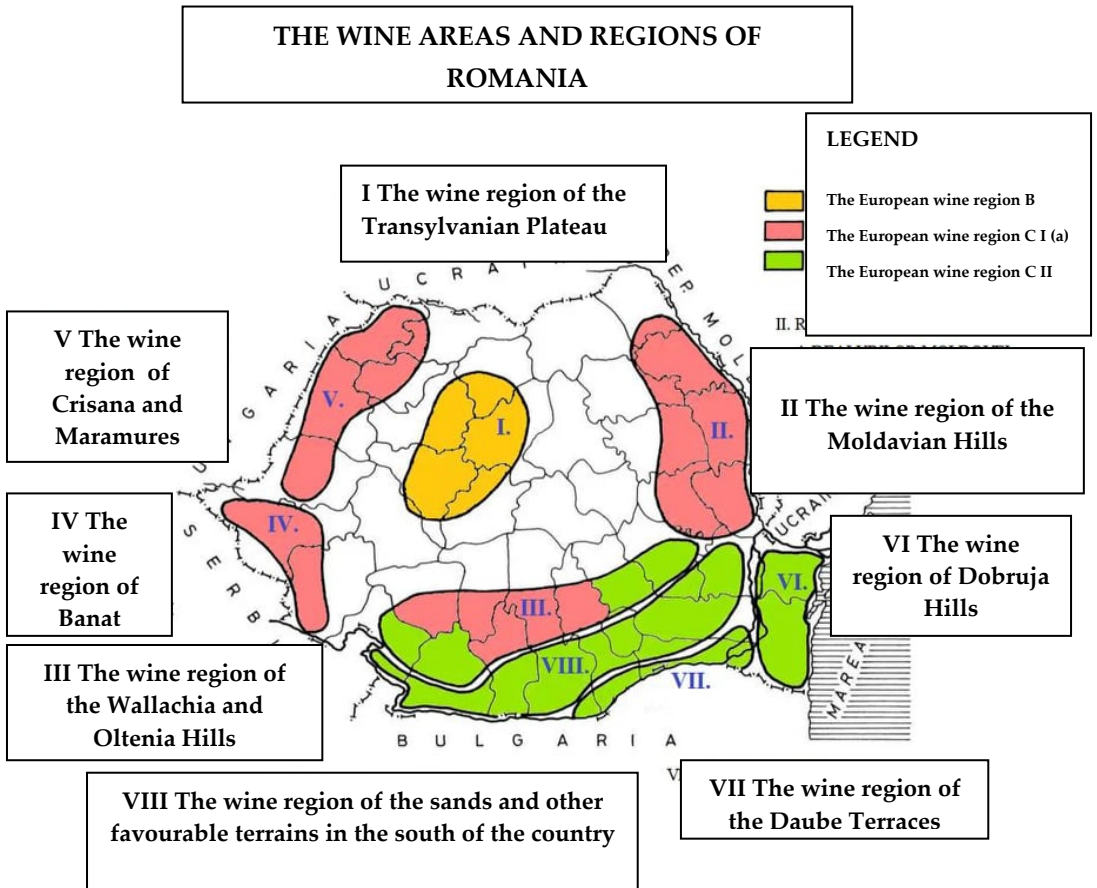
In Romania the research on this topic is very limited with few papers, and most of them are regional case studies. Studies on the wine roads in Dobrogea were conducted by Ranca et al., (2007) and by Popescu, (2021). Most of the studies are descriptive (Popescu, 2000) and expose the tourist attractions in a Wine Road on a certain region (Manilă, 2013) or are national studies on the wine potential (Soare et al., 2010).

In conclusion, research on the Wine Road in Southern Dobrogea and in Romania is quite few. This article aims to make a small contribution to the literature of Southern Dobrogea on the promotion of wine tourism.

## **Materials and methods**

### **Study area:**

Southern Dobrogea as a geographical settlement is found in the south-eastern extremity of Romania within the distinct relief unit of the Southern Dobrogea Plateau having the boundaries south of the Casimcea Plateau, where it is bounded by a major fault joining Camena from the northern part of Constanta with the southern part of Topalu, on the Bank of the Danube. The northern limit of the Plateau has a morphostructural character, while the eastern and western limits have morphohydrographic character, a special thing is the southern limit because it has a conventional character due to the border with Bulgaria. The Southern Dobrogea plateau presents low altitudes between 0 – 210 m and an average height of 86 m. slightly more than half of the plateau's surface, about 55% shows altitudes between 100-200 m only 1% exceeding the maximum altitude. The highest altitudes are found in the south-western part of the subunit, more precisely in the hills between the Băneasa and Dobromir valleys (Posea, 2005). The wine-growing region in this area is also concentrated in the South-East and presents a temperate-continental climate with Pontic influences in the East, Mediterranean in the South and Southeast and excessive in the North-East with an average annual temperature of 11°C and a solar radiation value of 120-125 kcal/cm<sup>2</sup>. The analyzed wine region falls within the wine-growing zone C II, according to the classification of the wine-growing areas of the European Union (Bene, 2017) (Figure 1). From a tourist point of view, Southern Dobrogea presents a diversified heritage starting from the landscapes of the Black Sea coast or the Danube river, to the Protected Areas Canaraua Fetii, Esekioi, to the wine tourism in Murfatlar or Ostrov, to the fish tourism on Lake Ostrov and Oltina, to the pilgrimage tourism from the Monasteries of St. Andrew or Dervent to the historical tourism in Adamclisi illustrated by the monument and Fortress Tropaeum Traiani, museums and through the ancient roman fortresses in the area (Albu et al., 2014).



**Fig. 1.** European classification of wine-producing areas and regions in Romania

Source: adaptation after Soare, 2007

### Data collecting

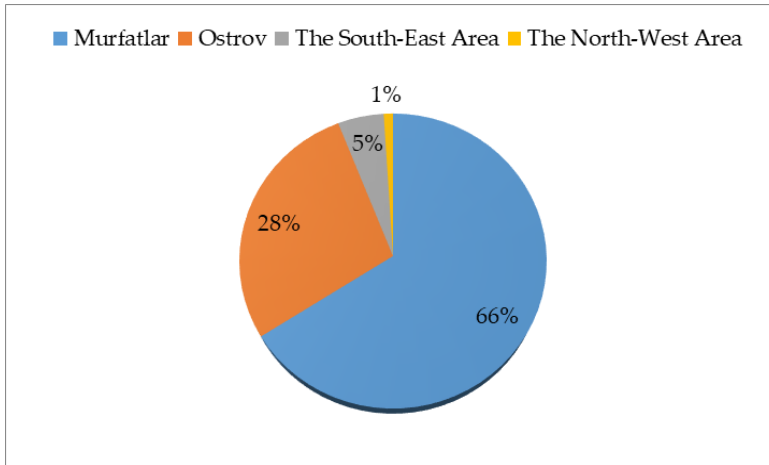
The research methodology is presented through bibliographic documentation from the specialized literature and through field research (photographs) in order to identify localities with oenological potential and which present opportunities to capitalize on this resource for agrotouristic purposes. To achieve this, settlements with local tourism potential, their infrastructure and the possibility of organizing oenological activities were taken into account.

The agrotouristic character with oenological potential is expressed by the existence of vineyards from the Southern Dobrogea Plateau to which are added the natural tourist heritage, tourist, historical, monastic and cultural sights. With the help of the program QuantumGIS 3.12.0, the mapping of the routes with the theme of the Wine Road was carried out. As a result of this, it is intended to increase the tourist flows within the area, which increases the social and economic level of settlements with oenological potential in the analyzed territory.

## **Results and disscussions**

### **Analysis of vineyards in the Southern Dobrogea Plateau**

Due to the optimal conditions of the natural environment, wine culture in this area has a long tradition being practiced since distant times (Macici, 1996). This was supported by the presence of the complex of favorable natural geographical factors (geology, geomorphology, soil, climate) known in the wine-growing field as "terroir". The notion terroir from the French "terre" derives etymologically from the Latin "terratorium" which means earth and which expresses the natural relationship between wine and Earth, things that restore the quality of wine (Schlosser et al., 2004). In Romania this term is the basis of the system of "controlled designation of origin" (DOC) and "Geographical Indication" (GI) for wines and derived products produced in defined geographical areas. The presence of this terroir in viticulture has been studied in the last 20 years and it was concluded that it influences the growth, development of the vine and the chemical composition of the grapes that finally restores the quality of the product (Bene, 2017). The wine-growing area of this territory covers 17,000 ha, the main vineyards being located in Murfatlar (approx. 11,000 ha) and Ostrov (approx. 4,700 ha), and the rest of the remaining area is divided into two smaller territories named after the geographical location, respectively the South – East and North – West areas (approx. 1.300 ha) (Popescu et al., 2012). As a result of statistical processing of these values, the territory of the murfatlar vineyards covers 66%, the Ostrov vineyards 28%, the South-East Area 5% and the North-West area only 1% of the south-dobrogean territory (Figure 2).



**Fig. 2.** Distribution of the viticultural area in South Dobrogea

The Murfatlar vineyard extends over the localities of Murfatlar, Medgidia and Cernavodă and makes up the Great Murfatlar Winery of about 11,000 ha. The vineyards of this winery reach up to the Danube-Black Sea Canal where they have a warm climate and optimal temperatures, most of the wine being grown on terraces (Romanescu et al., 1998) (Figure 3).



**Fig. 3.** Murfatlar Vineyardss  
Source: Bărbărie, 23.07.2020

Ostrov vineyard has been recognized since the XIX century in national and international viticulture in mass variety culture (about 50% of production) (Figure 4). The main characteristic is given by the cultivation of the Afuz-Ali grape variety, which grows only in this area in localities such as Băneasa, Oltina, along the Danube, Cernavodă and Cochirleni. This variety benefits from the best microclimate conditions, which helps to quickly mature the grapes to an amber hue (Popescu et al., 2012).



**Fig. 4.** Ostrov Vineyards  
Source: Albu, 06.10.2020

Regarding the South–Eastern area here come the vineyards of the localities 23 August and Chirnogeni, and in the North-Western one stands out the winegrowing areas of Topalu (Popescu et al., 2012).

### **Grape production from the South Dobrogea Plateau**

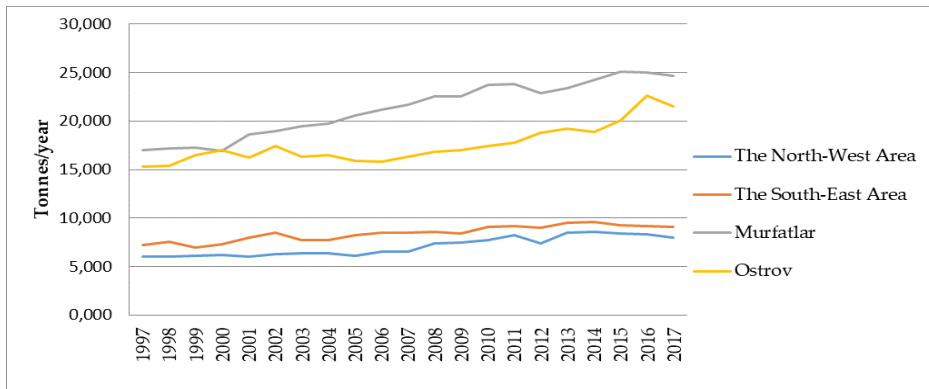
In the vineyards of the analyzed territory there were significant variations in the total quantity of wine grapes in the four analyzed wine areas. The highest values of tons/year were recorded in Murfatlar



vineyards of maximum 25,000 t/ha, followed by Ostrov vineyards with maximum 22,600 t/year. In the two adjacent wine-growing areas, values of 8,000 and 9,000 t/year were recorded.

The annual variations of tons, especially at the Ostrov and Murfatlar vineyards, are mainly due to climatic factors, namely the production of extreme weather phenomena faced by the southern part of Dobrogea (fog, drought and hail) or different vegetation periods (Popa et al., 2010).

The lowest grape yields were recorded for all vineyards in the period 1997-1999 of 6 t/year for the North-West area, 7,200 t/year for the South-East Area, 17,000 t/year for Murfatlar and 15,300 t/year for Ostrov. The highest values are recorded in 2014 of 8,600 t/year for the North-West area, 9,600 t/year for the South-East Area, in 2015 of 25,100 t/year for Murfatlar and in 2016 of 22,600 t/year for the Ostrov vineyards (Figure 5).



**Fig. 5.** Evolution of total annual production of wine grapes in Southern Dobrogea (1997-2017)

Source:Tempoonline- Statistici INSSE.ro

### **Wine varieties from the South Dobrogea Plateau**

Due to the favorable climatic conditions and the calcareous soil, Murfatlar vineyard produces superior varieties for semi-dry, dry and liqueur wines, among these varieties are Pinot Noir, Chardonnay, Merlot, Cabernet Sauvignon, Pinot Gris and Sauvignon Blanc, and as wine

assortments we have Muscat Ottonel (the most awarded white wine), Cabernet Sauvignon (red wines), Pinot Noir, Merlot, Pinot Gris, etc.

In the Ostrov Vineyard, the Afuz-Ali variety is best developed, followed by Muscat Hamburg, Muscat de Adda and Sultanina, and Fetească Regală and red wine varieties Pinot Noir, Merlot and Cabernet Sauvignon stand out as wine varieties.

The North-Western area is distinguished by the Topalu vineyard with varieties such as Cabernet Sauvignon, Merlot and Chardonnay, and the South-Eastern territory with vineyards from August 23 and Chirnogenii with varieties Cabernet Sauvignon, Merlot, Pinot Noir, Pinot Gris and Sauvignon Blanc (Ranca et al., 2007).

### **Analysis of the tourism potential of the wine-growing resources of Southern Dobrogea**

As a tourist profile, the Southern Dobrogea Plateau is recognized nationally and internationally by the wine-growing side, by the specific local traditions that give the agrotouristic capitalization of the area. Following this, the possibilities and opportunities of the localities were analyzed with the aim of putting into practice the wine-growing or oenological tourism. In order to implement wine tourism within the territory must be promoted the agrotouristic potential noted by the local vineyards, following which can be proposed agrotouristic routes with the theme "Wine Road", routes that will increase the tourist flows and rediscover the unique oenological tourism for this corner of the country (Stăncioiu et al., 2011).

Also in this analysis should be mentioned the natural and anthropic tourist heritage in the area (geological natural reserves, historical, cultural and monastic monuments) that are not part of wine tourism, but can be capitalized with its help generating a broad tourist image of the area able to offer the tourist a wide range of tourist forms.

Thus, the South Dobrogea area has a large tourist potential distributed over the entire area, in the west predominates natural wine tourism with the Ostrov vineyard, followed by that of natural and mixed reserves, in the central part there are historical and monastic tourism, and in the eastern and north-eastern part viticultural tourism

through the murfatlar vineyard. As far as the viticultural sights are concerned, the Southern Dobrogea Plateau has two of the main wine producers in our country: Murfatlar Vineyard – S. C. D. V. V.-Murfatlar and Domenii Ostrov Vineyard, which produce some of the most famous award-winning wines in Romania. Within these vineyards there are several wineries that make the touristic objective itself, including Rasova Winery (Rasova), Alira Winery (Aliman and Rasova), Frâncu Winery (Adamclisi), Darie Winery (Topalu), Adamclisi Domenile Winery (Adamclisi), Bogdan Winery (Peștera) and research and development resort for viticulture and winemaking Murfatlar (Murfatlar), locations that offer tourists guided tours through vineyards, wine tastings and local wines and products, shops, thematic festivals, etc. (Mihăilescu et.al., 2007).

### **Proposal of “Wine Road” routes within the Southern Dobrogea Plateau**

One of the most innovative and effective ways to promote areas with wine-growing potential is the “Wine Road” that is, a tourist route that includes the natural, material, industrial tourist heritage and the infrastructure of the territory, which allows enthusiasts and tourists to reach wineries or vineyards (Avram et al., 2012).

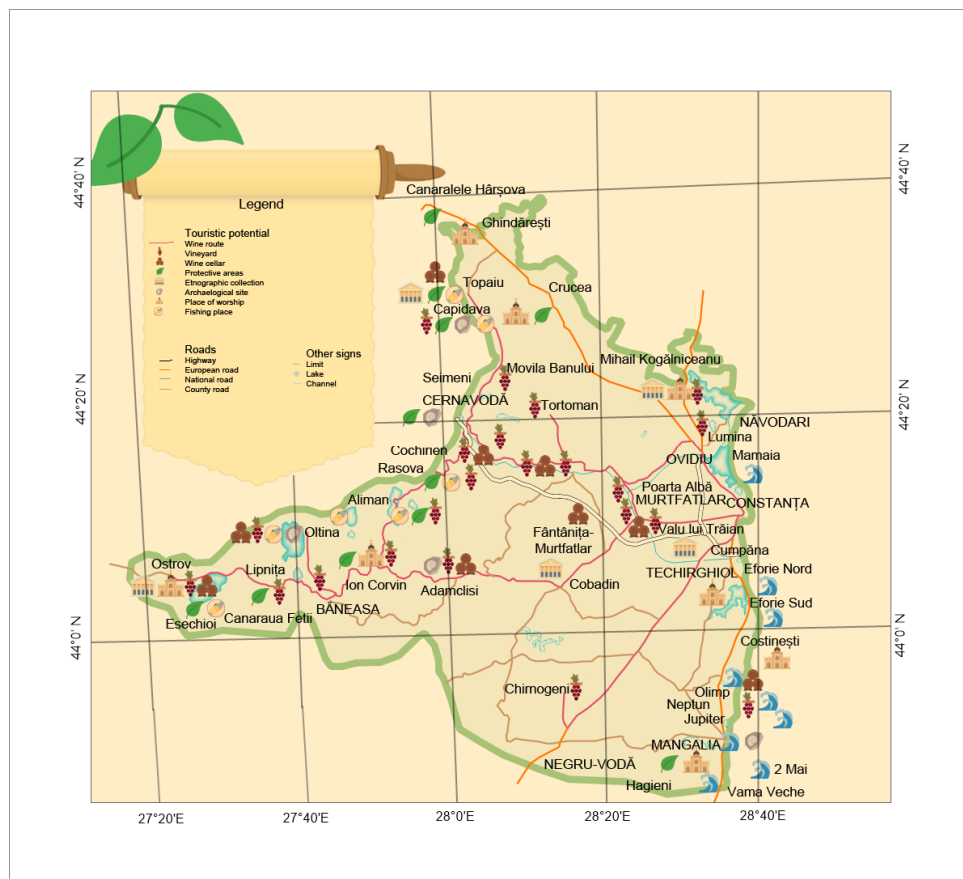
The purpose of conceiving these routes within the analyzed area is to conceive a tourism product that combines the viticultural potential with the natural, anthropic, cultural and historical in order to promote local viticultural products at national and possibly international level. Other objectives of these routes are to make leaflets, local guides, improve access to localities with a tourist profile, as well as the implementation of signs or signs to orient the tourist towards the local tourist attractions.

Following the location of the vineyards in the proximity of the tourist attractions, in Southern Dobrogea can be identified three viticultural tourist routes (Figure 6).

**Wine Road Constanța-Murfatlar-Medgidia-Cernavodă**, where you can visit the Murfatlar Vineyard, the Protected Areas Fantanița-Murfatlar and Valu lui Traian, the viticultural Research Resort Murfatlar and the Museum of Vine and wine and the winery M1 Atelier;

**Murfatlar Wine Road-Adamclisi-Ion Corvin-Ostrov**, where tourists can visit the Tropaeum Traiani Monument in Adamclisi, Protected Areas Canaraua Fetii and Esekioi, Ostrov vineyard, Bugeac Lake, Derwent and St. Apostle Andrew monasteries;

**Ion Corvin Wine Road–Cernavodă-Topalu**, where are found the fossil point Aliman, Axiopolis and Capidava sites and Danube and Oltina Lakes.



**Fig. 6.** Representation of the “Wine Road ” routes within the Southern Dobrogea Plateau  
Source: own elaboration

Following these proposed roads to increase the tourist flow can be made touristic packages in which the traditions specific to this territory

to join some wine tastings in wine cellars arranged for tourist purposes or for tasting specific culinary preparations Dobrogea (Popescu et al., 2017).

Although South Dobrogea has the tourist potential through which it can implement these tourist routes, at the moment the territory faces a modest infrastructure that allows harder access to some objectives, there is a lack of tourist markings that would guide potential tourists to the chosen objectives and also present a modest capacity for accommodation and alimentation for the potential tourists of the area.

### Conclusions

In order to promote the natural, anthropic and cultural heritage, the traditions related to vine cultivation, processing, vinification and valorization of grapes for tourism purposes, it is necessary to establish demonstration centers, rural tourist information points and clear signaling of the objectives on the thematic itinerary Wine Road. Small producers from local rural communities are interested in creating an association through which to promote the tourism product Wine Road from the Southern Dobrogea Plateau and included in tourist packages. The management of wine resources, integrated with that of natural, anthropic, historical, monastic and cultural resources, by placing oenotourism points and promoting local traditions and gastronomy, represents an important factor that will contribute to the sustainable development of agrotourism in the South Dobrogea Plateau.

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