

Analysis of the Touristic Circulation and Proposals to Increase the Touristic Potential in Dâmbovița County

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Abstract: The beauty of the landscape, but also the hospitality that we meet in the Dâmbovița County, make this area to be favorite of many tourists, both Romanian and foreigners. The touristic circulation had significant increases in each year, being influenced by many factors, which have led to the increase of the revenues for those who own units of touristic reception and for the inhabitant people of the area. For the possibility of this area's development and to attract a larger number of tourists, the environment is an issue which must be considered a priority. Is envisaged a clean natural environment in this county, respectively a better promotion of the environmental actions.

Keywords: tourism; rural tourism; indicators; statistical analysis

JEL Classification: L 83

1. Introduction

Tourism has become a business nowadays as important as that done in other key sectors in the global economy (industry, agriculture, trade). Tourism potential existing in our country is on an upward slope. Romania is becoming a destination for many tourists, because it can satisfy the most demanding customer segments.

For the future tourism to grow, currently being insufficiently exploited, we consider it necessary to propose a series of measures to revive and boost tourism activities, a socio-economic impact analysis and of their present and perspective consequences, drafting a strategy aimed at developing a set of objects identified to create a true tourism industry that are judged to be absolutely beneficial environmental effects.

We used the method of analysis of the touristic circulation indicators. To analyze the dimension of the touristic circulation from the Dâmbovița County, we researched the evolution of the indicators: number of tourists, number of nights spent, average length of the stay. Following the analysis, we made a forecast using

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the following methods: method of average growth, method of average index of dynamic and method of the linear trend. In conclusion, the optimal method of forecast was established as being the method of the linear trend.

2. Body of Paper

Analysis of tourist traffic indicators

The number of tourists are all visitors, both Romanian and foreigners who have been in Dâmbovița county, being registered in tourist accommodation units. Evolution of tourist arrival in the series analyzed is shown in the following table:

Table 1. Number of arrivals of tourists stay in Dâmbovița county in 2004-2008

YEAR	STS		
	Total	Romanian	Foreign
2004	64035	57907	6128
2005	58245	52522	5723
2006	60892	56048	4844
2007	68352	63029	5323
2008	72276	66564	5712
YEAR	DYNAMIC INDEXES		
	Total	Romanian	Foreign
2004	1	1	1
2005	0.910	0.907	0.934
2006	0.951	0.968	0.790
2007	1.067	1.088	0.869
2008	1.129	1.149	0.932
YEAR	TURE INDEXES		
	Total	Romanian	Foreign
2004	100	90.43	9.57
2005	100	90.17	9.83
2006	100	92.04	7.96
2007	100	92.21	7.79
2008	100	92.10	7.90

Source: *www.insse.ro*

Foreign tourist arrivals were registered on a continuous upward curve during the five years analyzed, only in 2005 had a downward trend. Also the evolution of Romanian tourists who arrived in this area has had an upward trend in tourist arrivals from 64.035 in 2004 to 72.276 in 2008. Romanian tourists in total share of tourists increased from 90.43% to 92.10% during the period under review.

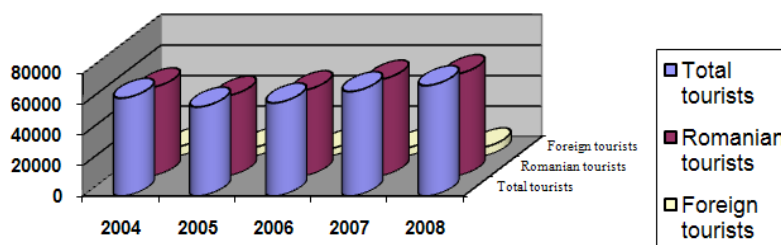


Figure 1. Evolution of tourist arrivals in 2004-2008

We believe that this increase in the number of arrivals in Dâmbovița county was because the offered tourist services have begun to live up to certain standards, natural and human resources of the area managed to attract tourists. Most tourists were mostly accommodated in hotels, offering the highest quality, leading to the conclusion that the arriving tourists are demanding in choosing accommodation. School and preschool camps, motels, urban tourist hostels and rural tourist hostels as they charge lower rates have been chosen also.

Another important indicator used in the analysis of tourist traffic is the number of overnight stays in tourist accommodation units. During the five years analyzed, overnight stays in Dâmbovița county is shown below:

Table 2. Number of nights spent by tourists in Dambovita county in 2004-2008

YEAR	NIGHT STAYS (Tourist)		
	Total	Romanian	Foreign
2004			
2005			
2006			
2007			
2008			
YEAR	PERFORMANCE INDEXES		
	Total	Romanian	Foreign
2004			
2005			
2006			
2007			
2008			
YEAR	STRUCTURE INDEXES		
	Total	Romanian	Foreign
2004			
2005			
2006			
2007			
2008			

Source: *www.insse.ro*

The table above shows that in 2004-2008, the number of overnight stays had an upward trend up to 302,230 overnight stays, with the exception of 2005 when the lowest value was recorded. Number of overnight rose to 248,565, compared to 2005 when 243,800 overnight stays were recorded, showing a difference of 4,765 nights, so an increase of 1.95%. A significant increase is noted during 2008, which registered an upward trend of 12.82% compared with 2007 and of 22.40 % compared with 2004.

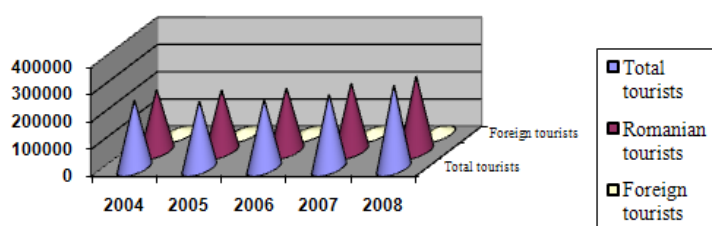


Figure 2. Evolution of the number of nights spent in 2004-2008

Source: www.insse.ro

The third indicator of tourism activity that we analyzed is the average length of stay, which is calculated by dividing the total number of overnight stays by the number of arrivals of tourists and is the average number of days of tourist accommodation in Dâmbovița County.

Table 3. Average stay in 2004-2008

Year	AVERAGE LENGTH OF STAY		
	Total tourists	Romanian tourists	Foreign tourists
2004			
2005			
2006			
2007			
2008			

The average length of stay in tourist structures recorded for the period under review an increasing trend from 3.86 in 2004 to 4.18 in 2008. In 2006-2007, the average length of stay was in a slight decrease from 4.08 to 3.92.

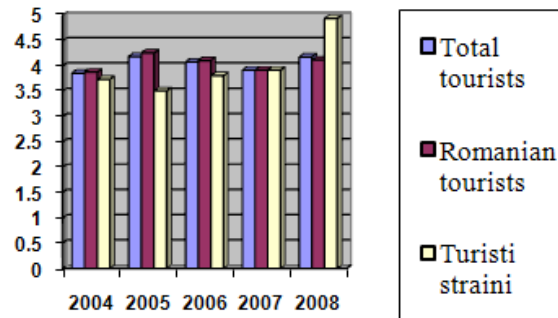


Figure 3. Evolution of the average stay in 2004-2008

3.1. Prospects for Tourist Traffic

To estimate the future development of tourist traffic in the next three years, it was taken into account arrivals of tourists, the situation being presented in the following tables. The coefficient of variation was calculated by three methods: average growth method, average dynamic index method and the linear trend method. Results a coefficient of variation of 7.497% through the average growth method, of 7.382% through average dynamic index method and of 5.197% through the linear trend method.

a. Average growth method

Year	y_i		$Y_i = y_1 + \bar{\Delta} * t_i$	$(y_i - Y_i)^2$
2004	64,035		64,035.00	0
2005	58,245		66,095.25	61,626,425.06
2006	60,892		68,155.50	52,758,432.25
2007	68,352		70,215.75	3,473,564.06
2008	72,276		72,276.00	0
Total	323,800		340,777.50	117,858,421.37

$$\bar{\Delta} = \frac{y_n - y_1}{n - 1} = 2,060.25 ; \quad \bar{y} = y_i/n = 64,760 ; \quad \sigma = \sqrt{\frac{\sum (y_i - Y_i)^2}{n}} = 4,855.07;$$

$$v = \frac{\sigma}{\bar{y}} * 100 = 7.497\% > 5\% ;$$

b. The average dynamic index method

Year	y_i	t_i	$Y_i = y_1 * I^t$	
2004	64,035	0	64,035.00	
2005	58,245	1	66,002.682	639.32

2006	60,892	2	68,030.828	873.78
2007	68,352	3	70,121.295	07.98
2008	72,276	4	72,275.999	016
Total	323,800		340,465.806	,921.08

$$I = \sqrt[n]{\prod_{i=1}^n y_i} = \sqrt[n]{I_{i/1}} = \sqrt[n]{\frac{y_i}{y_1}} = 1.030728236; \quad \sigma = \sqrt{\frac{\sum (y_i - \bar{Y})^2}{n}} = 4,780.69 ;$$

$$\bar{y} = y_i/n = 64,760; \quad v = \frac{\sigma}{\bar{y}} * 100 = 7.382\% > 5\%$$

c. The linear trend method

Year	y_i	t_i	t_i^2	$y_i * t_i$	$Y_i = a + b * t_i$	$(y_i - Y_i)^2$
2004	64,035	2	4	-128,070	59,442.20	21,093,811.84
2005	58,245	1	1	-58,245	62,101.10	14,869,507.21
2006	60,892	0	0	0	64,760.00	14,961,424.00
2007	68,352	1	1	68,352	67,418.90	870,675.61
2008	72,276	2	4	144,552	70,077.80	4,832,083.24
Total	323,80	0	10	26,589	323,800.0	56,627,501.90

$$a = \bar{y} = 64760 ; \quad b = \frac{\sum y_i * t_i}{\sum t_i^2} = 2,658.90 ; \quad \sigma = \sqrt{\frac{\sum (y_i - Y_i)^2}{n}} = 3,365.34;$$

$$v = \frac{\sigma}{\bar{y}} * 100 = 5.197\% > 5\% ;$$

Since the coefficient of variation for each method (v) is greater than 5%, we choose to forecast the method that has the lowest coefficient of variation, ie linear trend method.

Table 4. Forecast for the number of arrivals of tourists in Dambovită county in 2009-2011

Year	t_i	$Y_i = a + b * t_i$
2009	5	72,737
2010	6	75,396
2011	7	78,055

We observe an increase in tourist arrivals in Dâmbovița county in 2009-2011, thanks to the growth of household income, but also because of higher service quality offered in this area.

We believe that regardless of the type of tourist accommodation and its degree of comfort, quality of services must ensure optimal conditions for spending a holiday more enjoyable for tourists. It is also important that the units are diverse, so tourists

can choose their accommodation for next year and depending on their financial capability.

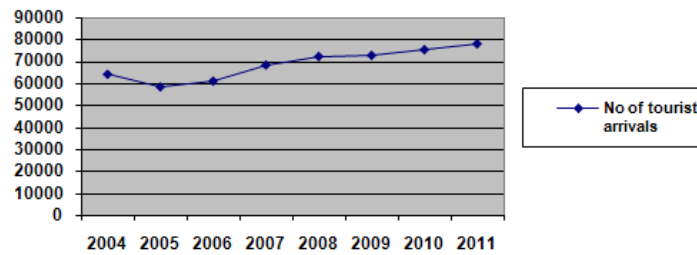


Figure 4. Forecast of number of arrivals in Dâmbovița County for 2004-2011

As for the number of arrivals of tourists in the county of Dâmbovița, we make the forecasts for the number of overnight stays, using the three methods mentioned previously. After calculations, we obtained a coefficient of variation of 6.354% using average growth method, 6.007% using the average dynamic index method and 4.104% through linear trend method.

a. Average growth method

Year	y_i	t_i	$Y_i = y_1 + \bar{\Delta} * t_i$	$(y_i - Y_i)^2$
2004	246,917	0	246,917.00	0
2005	243,800	1	260,745.25	287,141,497.56
2006	248,565	2	274,573.50	576,442,072.25
2007	267,889	3	288,401.75	420,772,912.56
2008	302,230	4	302,230	0
Total	1,309,401		1,372,867.50	1,384,356,482.37

$$\bar{\Delta} = \frac{y_n - y_1}{n - 1} = 13,828.25; \quad \bar{y} = y_i/n = 61,880.20;$$

$$\sigma = \sqrt{\frac{\sum (y_i - Y_i)^2}{n}} = 16,639.45;$$

$$v = \frac{\sigma}{\bar{y}} * 100 = 6.354\% > 5\%;$$

b. The average dynamic index method

Year	y_i	t_i	$Y_i = y_1 * I^t$	$(y_i - Y_i)^2$
2004	246,917	0	246,917.00	0
2005	243,800	1	259,715.360	253,298,706.21
2006	248,565	2	273,177.09	605,755,171.06
2007	267,889	3	287,336.584	378,208,550.66
2008	302,230	4	302,229.99	0.00000049
Total	1,309,401		1,369,376.038	1,237,262,427.93

$$I = \sqrt[n-1]{\prod I_{i/i-1}} = \sqrt[n-1]{I_{i/1}} = \sqrt[n-1]{\frac{y_i}{y_1}} = 1.051832643; \quad \sigma = \sqrt{\frac{\sum (y_i - Y_i)^2}{n}} = 15,730.62;$$

$$\bar{y} = y_i/n = 261,880.20;$$

$$v = \frac{\sigma}{\bar{y}} * 100 = 6.007 \% > 5\% ;$$

c. *The linear trend method*

Year	y_i	t_i	t_i^2	$y_i * t_i$	$Y_i = a + b * t_i$	$(y_i - Y_i)^2$
2004	246,917	-2	4	-493,834	234,937.20	143,515,608.04
2005	243,800	-1	1	-243,800	248,408.70	21,240,115.69
2006	248,565	0	0	0	261,880.20	177,294,551.04
2007	267,889	1	1	267,889	275,351.70	55,691,891.29
2008	302,230	2	4	604,460	288,823.20	179,742,286.24
Total	1,309,401	0	10	134,715	1,309,401.00	577,484,452.30

$$a = \bar{y} = 261,880.20; \quad b = \frac{\sum y_i * t_i}{\sum t_i^2} = 13,471.50; \quad \sigma = \sqrt{\frac{\sum (y_i - Y_i)^2}{n}} = 10,746.95;$$

$$v = \frac{\sigma}{\bar{y}} * 100 = 4.104 \% < 5\%;$$

Given that by the average growth method and the average dynamic index method, the coefficient of variation (v) is greater than 5% and through the linear trend method we obtained a coefficient of variation of less than 5%, we will choose this one order to predict the next three years.

Table 5. Forecast for number of nights spent by tourists in Dâmbovița county in 2009-2011

Year	t_i	$Y_i = a + b * t_i$
2009	3	302,295
2010	4	315,766
2011	5	329,238

After forecasting the number of overnight stays, as in the case of the number of arrivals of tourists, we see an upward trend for the next three years to them.

Clearly, in the near future will increase the number of overnight stays of tourists, but we think it should be taken certain measures, including the following: improving the infrastructure in order to more easily reach the sights, but also promote intense in the area, both internally and internationally.

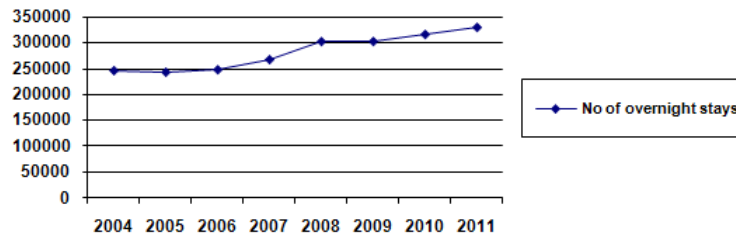


Figure 5. Forecast the number of overnight stays in Dâmbovița county for 2004-2011

Next in the table below, follows the forecast for the average stay:

Table 6. Forecast for the average stay in Dâmbovița county for 2009-2011

Year	Y_i
2009	4.16
2010	4.19
2011	4.22

There is an increase in the average stay for the next period, 2009-2011, Romanian tourists and foreigners will be further impressed by the improvements will be made in this county.

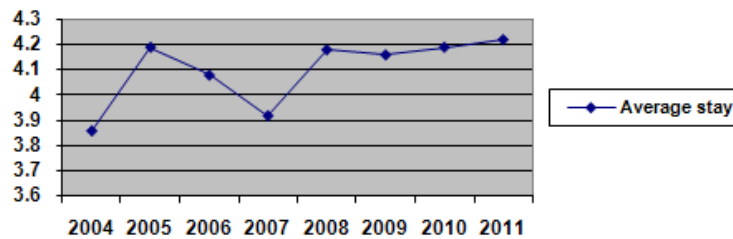


Figure 6. Average stay in Dâmbovița county forecast for 2004-2011

3.2. Proposals to Exploit Tourism Potential

When it wants to develop tourism in an area ,that must be done carefully so as not to damage the natural environment. This should consider the promotion of architecture in harmony with the natural environment, preserving wildlife and natural features, minimizing energy consumption and waste, promote

environmental activities, knowledge development and environmental education, promoting services and products that reflect the local culture .

As a general action to promote Dâmbovița county, in the development program can enroll the following:

1. framing touristic objectives in the general management plan of the settlements, in compliance with existing environmental regulations;
2. promoting business tourism in the city of Târgoviște;
3. creation and promotion of tourism programs on “Folklore Dâmbovița” to capitalize on traditions, sites history, customs of the areas by organizing seminars, fairs and exhibitions, performances;
4. leasing of land for tourist destinations to build new hotels or motels, treatment centers, this being favorable in the area Moroeni and Pucioasa;
5. accessing internal and external funds for the rehabilitation of historical monuments and architectural ensembles in the county;
6. development of tour packages : ecotourism , rural tourism , mountain sports, increased weekend tourism practice, and religious tourism;
7. development and improvement of transport infrastructure to facilitate access to the area; of this problem is taking care Dâmbovița County Council by accessing grants;
8. expanding and improving tourist information network to meet the needs of tourists by setting up several tourist information points- in this respect there is one in the resort of Pucioasa-and also digital info-kiosks in tourist-oriented places;
9. attracting tourism operators from Dâmbovița County at the national and international fairs to inform potential tourists about the beauty of the area;
10. greater involvement of local administrations and councils in promoting tourism activities;
11. broadening the entertainment bases, respectively the diversification of leisure;
12. development of the equine industry by building a racecourse for the organization of international and national competitions, setting up a riding school;
13. planning a golf course to attract certain categories of social classes, such as business people, foreign tourists, politicians;
14. the opening of restaurants with different specific (fishing, hunting, diet, lacto-vegetarian, Chinese);
15. building a modern go-karts tracks and one for motocross where you can organize international competitions, this would be possible in near Moreni;
16. improve existing services by upgrading their hotels and lifting some of the class units;

17. to exploit the potential of the county particularly hunting and fishing, will be used hunting lodges, places of observation and special places for fishermen along the river.

Of all these targets, are priority improving and developing primary access routes to and from the county, which would facilitate the movement and also increase the number of visitors. To achieve most of the promotional targets, it should be a close liaison between those in charge of promotion and the public institutions, the latter supporting the former both financially and by consulting.

Analysis of occupancy of different accommodation capacity of Dâmbovița county, is shown in the following graphs:

Table 7. Accommodation capacity in the Dâmbovița County in number of housing units, 2004-2008

Tourist accomodation strucures -total	2004	2005	2006	2007	2008	\bar{y}	$\bar{\Delta}$	\bar{I}	\bar{R}
Hotels	10	10	9	9	10	9.60	-	100	-
Hostels	1	1	1	1	1	1.00	-	100	-
Motels	3	3	3	3	3	3.00	-	100	-
Villas	1	1	1	1	1	1.00	-	100	-
Cottages	4	4	3	3	4	3.60	-	100	-
Camps for schoolchildren and preschoolers	4	4	4	4	4	4.00	-	100	-
Urban tourist boarding	3	4	8	8	9	6.40	1.50	132	32
Rural guesthouses	7	14	8	9	11	9.80	1.00	112	12
TOTAL	33	41	37	38	43	38.40	2.50	107	7

Source: Statistical Yearbook of Dâmbovița county, 2010

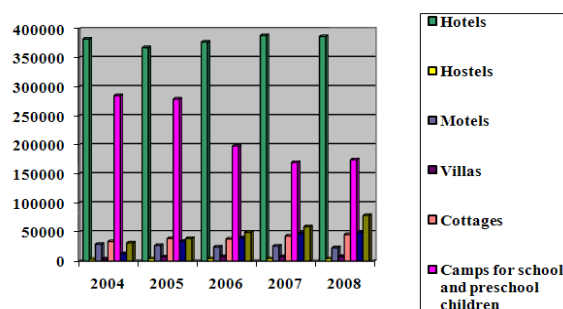


Figure 7. Evolution of tourist accommodation capacity in Dâmbovița County, 2004-2008

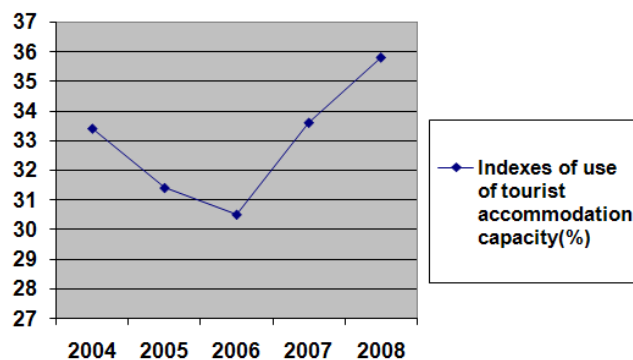


Figure 8. Evolution of the use of accommodation capacity in operation between 2004-2008

The result is a significant reserve of unused accommodation, and therefore, promoting tourism in the area should focus on qualitative aspects rather than quantitative ones such as extending the existing accommodation capacity.

For a program to promote tourism in an area to be effective, it is necessary to do this promotion unit for each region that has tourism potential.

This calls up the establishment of an association in Dâmbovița county, which aims right that promotion. Association members may be: travel agencies, travel agency owners or managers of different types of accommodation units and other entities interested in promoting tourism. The program for promoting the area should contain the following:

1. achievement of promotional materials for the media (articles, broadcasts), web pages, various brochures, guides, catalogs, posters and distributing them ;
2. organising a tourism fair that takes place presenting the most important areas of the county;
3. involvement of faculties students in promoting activities through the specialty practice;
4. achieving an advertisement on the legends and myths specific to Dâmbovița County;
5. production of billboards and locating them near tourist attractions;
6. making tours and organizing camps for students to see the beauty of the area at preferential prices;
7. when setting up a promoting association, their representatives should contact the private companies and could offer a package like “A weekend of for the month employee and his family” or for more employees, depending on the resources of the firm;
8. the development of tourist products to promote religious tourism.

We proposed a tourist circuit in Dâmbovița county, which will last four days and will be called “Discovering Dâmbovița .” Tourist route involves the displacement of a number of 25 persons and is designed for people fond of art and Romanian tradition, persons over 35 years which have an average level of income.

Day 1:

Departure from Bucharest North at 9:00 and will travel the following route Bucharest-Târgoviște-Pucioasa-Pietroșița-Moroieni. Moroieni.

We will arrive at 11:00 in the city of Târgoviște, hotel accommodation will be at ***“Dâmbovița”, located downtown. Lunch will be taken at the restaurant and then at 15:00 the major sights will be explored.

Group of tourists will travel to visit the at the Royal Court the Chindia Tower, this being built by Vlad Tepeș, then goes to Metropolitan Complex and the Dealu monastery. Next we will visit the Museum of Târgovișteni Writers, Museum of Printing and Old Romanian Books and Gheorghe Petrașcu Workshop House.

The program of the day will end by watching an interesting theater performance at theater Tony Bulandra”.

Day 2:

We will have breakfast at 8:30 at the hotel restaurant after which we will head by bus to the resort Pucioasa, a small resort, but stylish and inviting that draws you in its beauty and good taste. We will visit the exhibition of the Ethnographic and Folk Art from the early nineteenth century. Since this time there will be “Folk Craftsmen Fair”, where artisans from all over the country come to display their skills, we make them a visit where we will be able to purchase various souvenirs.

Then you will go to the restaurant “ Licurici” ,a rustic restaurant, after that we continue to move towards Pietroșița and we will accommodate at the guesthouse “Alecsander”.

Day 3:

Breakfast at 8:30 at the guesthouse “Alecsander”. It follows the visit at Pietroșița Museum, which by the objects and documents exposed reveals the history of places and then the Memorial House” Ion Heliade Rădulescu”.

Tourists will travel by coach to Moroieni a fairly attractive area and will go to the Ialomita cave, Bears Gorge, Great Zănoagei Gorge. In the evening we will head to the Bolboci cottage located 25 km from Moroieni, where accommodation will be made.

Day 4:

Breakfast will be taken at 8:30, after which there will be a hike through the surrounding area. We go to Lake Bolboci, although is an artificial lake, is framed in a wonderful setting. It will be also a two-three hours trip to Tătarului Gorges, Orzea Gorges, Horoabelor Canyon.

We will have lunch and then we will return to Bucharest.

4. Conclusions

Following the study, we found that tourism in this area is an emerging economic sector and has significant growth potential in the coming years if there will be a significant promotion. They were relaunched some tourist centers and there have been started programs for sustainable development of the area.

This area has an impressive number of tourism resources, natural and human resources, which are not valued at their fair value. In recent years, the county authorities began to implement tourism projects that have sought extension of mountain tourism, cultural tourism, rural tourism, leading to increasing tourist flow in this region.

It appears that the tourist traffic in Dâmbovița County has continuously increased in recent years, which led to the development of tourism and of the economic zone by default. We believe that the practice of rural tourism is mainly the reason in increasing of the tourist arrivals.

In our view in order to develop this area and to attract a larger number of tourists, the environment is an issue to be considered. Without a clean natural environment, tourism can not be developed as a qualitative activity ,and for this purpose the promotion of environmental actions should be included among priorities.

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