ACCOMMODATION INFRASTRUCTURE AND TOURISM FLOWS ON FELEACU HILL (CLUJ COUNTY)

DANIELA-LIVIA GHEORGHIEȘ¹

ABSTRACT. – Accommodation Infrastructure and Tourism Flows on Feleacu **Hill (Clui County).** Feleacu Hill experienced tourism development between 2001 and 2015. The INS data indicates that the number of accommodation units increased from one (2001) to four (2015) and there are a few more which are not registered in the INS database. The accommodation capacity increases, as many guesthouses are expanding their premises to receive more tourists and new accommodation units emerge, such as Hotel Premier in Vâlcele (Feleacu commune). Tourism flows also registered a highly positive trend. The number of arrivals increased from 95 tourists in 2002 to 7791 tourists in 2015. However, there was a downturn between 2009 and 2012, due to the economic crisis and the opening of the Turda - Gilău motorway (A3), which redirected transit routes outside the region and led to the closure of Paradis Hotel in 2012. Since 2012, the number of arrivals and overnight stays increased steadily due to the development of new forms of tourism - rural tourism, agrotourism, extreme tourism and complex tourism, materialized in growing numbers of tourists at the two guesthouses in Ciurila commune ("La Mesteceni" and "Domeniul Regilor"). Tourism brings obvious benefits to the rural communities on Feleacu Hill, even if the average duration of stay is still low.

Keywords: accommodation units, tourism flows, Feleacu Hill, rural tourism, overnights, accommodation capacity.

1. INTRODUCTION

Feleacu Hill is a part of the Transylvanian Basin, located between Someşul Mic Corridor to the North, the Transylvanian Plain to the East, Hăşdate Basin to the South and Săvădisla-Luna de Sus Corridor to the West (P. D. Idu, 1969, Al. Savu, 1983, 1987, Gr. P. Pop, 2001, 2007). Administratively, it comprises the entire communes of Feleacu, Tureni and Aiton, about half of Ciurila commune and the village of Tăuți (part of Florești commune). It rises at 832 m high in Peana Peak and 825 m in the summit of Măgura Sălicii. The main range, oriented roughly West-East, dominates the surrounding areas by a few hundred meters.

¹ "Babeş-Bolyai" University of Cluj-Napoca, Faculty of Geography, 5-7 Clinicilor Street, e-mail: danielagheorghies@yahoo.com

The hilly terrain and the natural environment consisting mainly of forests and grasslands contributes to its tourism value, especially for week-end outdoor breaks for the urban inhabitants of the nearby cities, especially Cluj-Napoca, and to a lesser extent, Turda and Câmpia Turzii. Făget Forest is a very popular picnicking, walking and hiking area. The lakes on Racilor Valley, Hăşdate and Micuş provide opportunities for fishing and other water-related activities.

Transit tourism is also important, given the fact that the A3 motorway as well as DN 1 and DN 1N (Vâlcele-Apahida bypass) national roads cross the region.

Cultural and religious tourism is increasingly significant in the region because of the presence of Feleacu and Florești/Tăuți monasteries, the medieval churches of Feleacu, Aiton and Gheorghieni, the wooden churches of Săliște and Tăuți, the manor in Aiton.

Adventure tourism and other types of recreational tourism have developed much lately with the emergence of Adrenalin Park (Casele Micești), Fun Park (Feleacu), "Moara de Vânt" Zoo Park (Sălicea). The ski slope in Feleacu is very popular in winter.

2. TOURISM ACCOMMODATION INFRASTRUCTURE

In order to ensure quality tourism, a good infrastructure is needed, comprising accommodation and food units, leisure facilities and, not in the least, access routes to tourist attractions. One should also add the quality of the technical infrastructure – power lines, water suply, sewerage system (Alexandra Tătaru, 2008, p. 306).

On Feleacu Hill, tourism potential is well capitalized by means of different units that try to meet the multiple demands of today tourists. A brief analysis of statistical data shows that not all the accommodation units that exist and can be found in the field are included in the databases of the National Institute for Statistics (INS). Therefore, the results of a detailed analysis on the data provided by the INS might be slightly different from the reality in the field.

Table 1.

Commune	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	1	1	1	2	2	3	1	2	2
Feleacu	1	1	1	1	1	1	1	1	1	1	-	1	1	1	1
Tureni	-	-	-	1	2	2	2	2	2	2	2	1	1	1	1
Total	1	1	1	2	3	3	4	4	4	5	4	5	3	4	4

The evolution of the number of accommodation units in Feleacu Hill communes between 2001 and 2015

Source: INS, TEMPO-ONLINE database (2016)

After 1990, tourism on Feleacu Hill experienced a positive dynamics of the number of accommodation units due to the ever growing number of tourists and therefore a higher and more diversified demand.

Until 2000 there were no accommodation units, at least not officially. Between 2001 and 2015 the number of accommodation units grew from one (in 2001) to four (in 2015) and there were even five statistically registered units in 2010 and 2012. One notices the increasing number of agrotourism guesthouses, peaking at four units in 2015. This trend is likely to continue in the future as more and more tourists prefer such structures. On the other hand, Paradis Hotel in Tureni, which existed in the statistical databases between 2005 and 2011, disappeared as such after 2011; as a consequence, since 2012, agrotourism guesthouses have represented 100% of the accommodation units in the studied area according to INS data.

This fact is not entirely true as four-star Hotel Premier in Feleacu commune (Vâlcele village), near the DN1/E60 road, has received tourists at least since 2015 but it is strangely missing from the INS data regarding accommodation units, while it is present in their data regarding arrivals.



Fig. 1. Map of the accommodation infrastructure on Feleacu Hill

DANIELA-LIVIA GHEORGHIEŞ

In Tureni commune there are also accommodation units that are not present in the INS statistical data. There are three accommodation units that can be identified in the field: three-star Paprika Inn, two-star Imperial Guesthouse and two-star Gold Fayen House. They also have functional websites where one has the possibility to book his or her stay. However, only one guesthouse appears in the INS statistical data.

There are no accommodation units in Aiton commune because of the lower number of tourist attractions and the larger distance to the national road and the main cities issuing tourist flows, especially Cluj-Napoca.

The number of accommodation beds has grown directly proportional to the number of accommodation units. However, one remarks the increase of the accommodation capacity of certain units.

The total number of beds increased from 5 in Feleacu commune (Teleschi Guesthouse) in 2001 to 80 in 2015, when the majority of beds (50) were located in the two guesthouses ("La Mesteceni" and "Domeniul Regilor") in Ciurila commune. A peak was registered in 2010-2012, when about 100 accommodation beds were available, of which 40 at Paradis Hotel in Tureni and 20 at a third guesthouse in Ciurila commune.

In certain cases, the guesthouses increased their accommodation capacity. For instance, at Teleschi Guesthouse in Feleacu, the number of beds grew from 5 (between 2001 and 2010) to 14 (since 2012). The number of beds at the two guesthouses in Ciurila commune increased from 38 in 2010 to 50 since 2014.

Table 2.

Commune	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	18	18	18	38	50	70	30	50	50
Feleacu	5	5	5	5	5	5	5	5	5	5	-	14	14	14	14
Tureni	-	-	-	16	56	56	56	56	56	56	56	16	16	16	16
Total	5	5	5	21	61	61	79	79	79	99	106	100	60	80	80

Evolution of the accommodation capacity of the units in Feleacu Hill communes between 2001 and 2015 (bed places)

Source: INS, TEMPO-ONLINE database (2016)

The only decline is registered in Tureni commune as a result of the closure of Paradis Hotel, which led to a decrease of the accommodation capacity from 56 (between 2005 and 2011) to 16 since 2012. However, this situation is based only on the INS statistical data. As shown before, there are several other accommodation units in Tureni which are not included in the INS databases. For instance, Paprika Inn practically replaces the former Paradis Hotel, as it inherits the building. According to its website, it has 28 single, double and triple rooms

ACCOMMODATION INFRASTRUCTURE AND TOURISM FLOWS ON FELEACU HILL (CLUJ COUNTY)

as well as a flat (for four people), which suggests an accommodation capacity of more than 50 beds. Imperial Guesthouse is probably the one which appears in the INS data with 16 accommodation beds, although its website states that there are 9 double rooms, so 18 beds. Gold Fayen House has, also according to its website, 21 beds in 8 rooms. "Lacul Micești" Guesthouse near Micești (in Tureni commune, too) provides 11 rooms to tourists, which accounts for about 22 beds, and a chalet for groups of 8 to 10 people. It comes out that the real accommodation capacity in Tureni commune is about 120 beds, compared to just 16 that are registered by the INS.



Fig. 2. Teleschi Guesthouse and the starting point of Feleacu ski slope

Nevertheless, the growing trend of the accommodation capacity is set to continue in the near future, both statistically and in reality. As the data regarding the number of arrivals and overnight stays at Hotel Premier in Feleacu commune (Vâlcele village) are already registered by the INS since 2015, the data regarding the accommodation capacity of this hotel should be available soon. The data concerning the functional tourism accommodation capacity (table 3) suggest an accommodation capacity of more than 80 beds in this four-star hotel.

The *functional* accommodation capacity, measured in beds-days, represents the result of the multiplication of the number of beds by the number of days when these beds are available (in one year). Generally, if all the accommodation places are available all year round, then the number should be the result of the multiplication of the accommodation capacity by 365 days (or 366 in leap years).

DANIELA-LIVIA GHEORGHIEŞ

Such a situation is registered for instance at Teleschi Guesthouse in Feleacu, where the number of 5110 beds-days in 2014 is obtained by multiplying its capacity of 14 beds by 365 days. An identical situation was recorded at the same guesthouse between 2003 and 2010, when there were only 5 beds. In 2004 and 2008 the functional accommodation capacity increased by 5 beds-days as they were leap years and one day was added.

Table 3.

Commune	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	-	1159	13055	17601	23200	12970	16206	15750
Feleacu	1070	1825	1830	1825	1825	1825	1830	1825	1825	-	3430	5200	5110	33273
Tureni	-	-	5360	14400	20440	20440	20496	20440	20440	20501	11062	6476	6236	6570
Total	1070	1825	7190	16225	22265	22265	22326	23424	35320	38102	37692	24646	27552	55593

The evolution of the functional accommodation capacity in Feleacu Hill communes between 2002 and 2015 (beds-days)

Source: INS, TEMPO-ONLINE database (2016)

On the contrary, in some years, no numbers are registered for the functional accommodation capacity despite the fact that a certain accommodation capacity *is* registered by the INS. It is the case of the year 2001 in Feleacu commune, where 5 beds were registered, but no functional accommodation capacity, or in the years 2007 and 2008 in Ciurila commune, where an accommodation capacity of 18 beds seems not to be functional according to statistical data. In other cases, a lower functional accommodation capacity suggests that the accommodation units were closed for certain periods throughout the year or certain rooms were not available for tourists. Usually, these periods are off-season when the owners have time to perform certain restoration, renovation and improvement works. Sometimes, these works extend over longer periods – for instance, Teleschi Guesthouse was closed in 2011 all year round.

The functional accommodation capacity registered the same trend as the accommodation capacity but the increase was more spectacular – from 1070 beds-days in 2002 to 55593 beds-days in 2015. In 2015 nearly 30000 beds-days appeared "out of nowhere" in Feleacu commune at a different unit than Teleschi Guesthouse, most certainly Hotel Premier. This value represents more than 50% of the functional accommodation capacity in the analyzed region. Before this, the highest value was registered in 2011, 38102 beds-days, of which 14600 beds-days corresponded to Paradis Hotel in Tureni, which functioned only for a couple of months more in 2012 before disappearing from the INS data. As mentioned above, the real functional accommodation capacity is higher in Tureni commune.

3. TOURISM FLOWS

On Feleacu Hill, tourism flows registered a positive trend between 2002 and 2015, the period for which INS provides data (by means of TEMPO-ONLINE database). It must be said that these statistical data strictly concern those tourists who were accommodated and registered as such at the accommodation units in the studied area. In reality, the number of tourists is much higher: on one hand, there are many transit tourists who visited certain attractions in the area but preferred to accommodate somewhere else (for example, in Cluj-Napoca City); on the other hand, the week-end tourists from Cluj-Napoca or Turda might prefer to go back and sleep over night in their own homes.

In terms of the number of tourist arrivals at the accommodation units on Feleacu Hill, the value increased exponentially from 95 tourists in 2002 (all registered at Teleschi Guesthouse in Feleacu) to 7791 tourists in 2015 (of which 5657 in Feleacu commune: 980 at Teleschi Guesthouse and 4677 at Hotel Premier).

Table 4.

											u		,	
Commune	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	-	18	399	550	502	793	1053	1656
Feleacu	95	241	293	336	537	702	1037	627	383	-	40	175	351	5657
Tureni	-	-	502	1382	4172	4651	4947	3376	2844	3635	680	512	433	478
Total	95	241	795	1718	4709	5353	5984	4021	3626	4185	1222	1480	1837	7791

The evolution of the number of tourist arrivals in the accommodation units in Feleacu Hill communes between 2002 and 2015 (people)

Source: INS, TEMPO-ONLINE database (2016)

A more detailed look highlights a significant rise between 2002 and 2005, and then a leap from 1718 arrivals in 2005 to 4709 arrivals in 2006 due to the opening of Paradis Hotel in Tureni, preferred by the vast majority of tourists (79.16%) in the region. Given the specificity of the hotel, one may assume that they were either transit tourists or arrived for certain events, celebrated at the hotel's restaurant (weddings, baptisms, anniversaries).

The total number of people arrived and accommodated in the analyzed region continued to increase until 2008, when it reached 5984 people, of which 1037 at Teleschi Guesthouse in Feleacu, 4134 at Paradis Hotel in Tureni and 813 at Imperial Guesthouse in Tureni, the peak for each of these accommodation units. The share of tourists staying at Paradis Hotel decreased however to 69%.

It seems that the economic crisis and the opening of Turda-Gilău A3 motorway had an impact on the number of tourists in the following years, 2009 and 2010, as it dropped at all the accommodation units in the studied area. A small revival in recorded in 2011 but only in the case of Imperial Hotel in Tureni, just

before its closure (or anyway before it disappeared from the INS data) in 2012. As a result, the number of arrivals registered between 2012 and 2014 is three to four times lower than the ones recorded between 2006 and 2011.

The positive trend registered since the lowest point in 2012 is caused by the development of new types of tourism – especially rural tourism, agrotourism, extreme tourism and complex tourism. This materialized in the growing number of arrivals at the two guesthouses in Ciurila commune, which came to represent more than 50% of all the people that arrived and were accommodated in the studied region in 2013 and 2014.

The data of 2015 suggest a new significant and very high leap, as the values increased approximately four times compared to 2014 due to the registration of people accommodated at Hotel Premier in Vâlcele (Feleacu commune), a location known mainly for organizing large events as it has a hall for 400 people.

This very high value masks other improving numbers for 2015, as the rise in the number of arrivals at all the accommodation units according to INS data: from 1053 tourists in 2014 to 1656 tourists at the two guesthouses in Ciurila commune; from 351 tourists (2014) to 980 tourists (2015) at Teleschi Guesthouse in Feleacu; from 433 tourists (2014) to 478 tourists (2015) at Imperial Guesthouse in Tureni.

We estimate that this growing tendency will be maintained in the years to come, both due to the increase of the number of tourists at the existing accommodation units and to the opening or "officialization" of new accommodation units in the studied area in the context of higher demand.

As expected, the number of overnights at the accommodation units in the studied area experienced a similar evolution to that of the number of arrivals, as sojourns were generally short and very short (1 to 3 nights) for the majority of tourists. The number of overnights was significantly higher between 2005 and 2011, when Paradis Hotel in Tureni functioned. The values peaked in 2007 and 2008 before the economic crisis and the opening of the motorway sector Turda – Gilău (A3), when all the traffic concentrated on the DN1/E60 national road passing through Tureni.

Table 5.

The evolution of the number of tourist overnights in the accommodation units in Feleacu Hill communes between 2002 and 2015 (overnights)

Commune	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	-	36	544	998	695	1098	1896	2515
Feleacu	190	482	586	672	1074	1404	1783	1229	766	-	40	279	565	10547
Tureni	-	-	988	2191	6497	7371	6996	4324	3524	4910	1015	614	653	478
Total	190	482	1574	2863	7571	8775	8779	5589	4834	5908	1750	1991	3114	13540

Source: INS, TEMPO-ONLINE database (2016)

ACCOMMODATION INFRASTRUCTURE AND TOURISM FLOWS ON FELEACU HILL (CLUJ COUNTY)



Fig. 3. "La Mesteceni" Guesthouse in the newly-built part of Sălicea village

After 2012, one noticed the same constant growth, based primarily on the ever higher number of overnights at the two guesthouses in Ciurila commune. In 2015, the values rise more than four times due to the overnights registered at Hotel Premier (Feleacu commune), more than 10000, representing almost 78% of all the overnights in the studied region.

The computation of the average duration of stay in the analyzed period leads to certain statistically unbelievable results. For instance, both at Teleschi Guesthouse in Feleacu and at Imperial Guesthouse in Tureni, the recorded average duration of stay is exactly 2 nights for several years in a row, which is probably a "calculated" error. The average duration of exactly one night looks similarly erroneous at the same guesthouses in the years 2012 (Teleschi) and 2015 (Imperial). Is it possible that all the tourists stayed there for just one night?

Certainly, the values for Tureni commune between 2005 and 2011 are largely due to the overnights registered at Paradis Hotel, and that is why an identically "suspect" row of the number 2 does not appear in table 6 for Tureni commune. However, one may rise the issue of the valability of the statistical data provided by the INS starting from these numbers.

Table 6.

Commune	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Ciurila	-	-	-	-	-	-	-	2	1.36	1.81	1.38	1.38	1.80	1.52
Feleacu	2	2	2	2	2	2	1.72	1.96	2	-	1	1.59	1.61	1.86
Tureni	-	-	1.97	1.59	1.56	1.58	1.41	1.28	1.24	1.35	1.49	1.20	1.51	1
Total	2	2	1.98	1.67	1.61	1.64	1.47	1.39	1.33	1.41	1.43	1.35	1.70	1.74

The evolution of the average duration of stay at the accommodation units in Feleacu Hill communes between 2002 and 2015 (nights)

Source: INS, TEMPO-ONLINE database (2016)

If we are to believe these statistical data, the average duration of the sojourn declined from 2 nights in the years 2002 and 2003, when the only accommodation unit was Teleschi Guesthouse in Feleacu, to 1.33 - 1.43 nights in 2009-2013, when probably registrations were more carefully conducted. The lowest value, 1.33, was registered in 2010, at the height of the economic crisis.

Since then, one remarks a growing trend of the average stay. This fact is first due to the increasing average duration of stay at almost all guesthouses, even if they are still based mainly on week-end and transit tourism. However, there are more and more tourists who prefer to stay at these guesthouses for longer periods, either for leisure (rural tourism) or because they considered them a better option during longer events taking place in Cluj-Napoca or nearby, such as Untold Festival (since 2015), Electric Castle Festival, Transylvania International Film Festival (TIFF), when hotels in Cluj-Napoca are fully-booked.

On the other hand, the higher value of 2015 does not reflect only the higher number of events in Cluj-Napoca (city which was the European Youth Capital that year), but also the statistical inclusion of Hotel Premier in Vâlcele (Feleacu commune). This hotel focuses on events and some of them (conferences, symposia, congresses) have a longer duration. As a consequence, the average duration of stay increased to 1.86 days in 2015 for Feleacu commune and to 1.74 nights for the entire analyzed region.

The analysis of the seasonality on the basis of INS statistical data indicates a relative stability of the values and some exceptions from the usual situations. On the one hand, the best month, August, has more than double than the number of arrivals in the worst month, which is suprisingly May. Lower values are registered, also somewhat surprisingly, in January. On the other hand, February has the highest values in the first five months of the year but lower than any month between June and December.

One remarks a slight peak in summer but people arriving in September and October are almost as many as in July, which is rather paradoxical. Even the number of arrivals in November, usually considered among the "worst" off-season months in tourism industry, is higher than the values in spring or winter.

Table 7.

The monthly evolution of the number of tourist arrivals at the accommodation units in Feleacu Hill communes between 2010 and 2015 (total number of people)

Commune	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Ciurila	193	243	291	551	345	534	378	500	540	428	423	527
Feleacu	360	485	458	70	142	739	799	615	545	708	645	657
Tureni	591	710	583	625	566	550	882	1193	926	913	643	400
Total	1144	1438	1332	1246	1053	1823	2059	2308	2011	2049	1711	1584

Source: INS, TEMPO-ONLINE database (2016)

Some explanation may be provided starting from the manner in which certain accommodation units functioned between 2010 and 2015, the only years for which the INS provides monthly statistical data. For Tureni, the values recorded at Paradis Hotel between 2010 and 2012 were decisive in the configuration of seasonality, as they peaked in summer and autumn. For Feleacu, the values for Hotel Premier in 2015 were also decisive as they were much higher than the ones recorded at Teleschi Guesthouse between 2012 and 2015 (there were no arrivals at this guesthouse in 2010 and 2011, at least according to INS data). But Hotel Premier started to receive higher flows of tourists only since June 2015 and in the previous two months it had no tourists. This explains the low number of arrivals in April and May in Feleacu commune, as they were registered only at Teleschi Guesthouse, which is less crowded outside the winter season.

In terms of seasonality, one may conclude that for the moment it does not seem to determine major variations in the tourist flows, as long as the region relies on types of tourism which are not so much dependent on seasonality – events that may occur any time throughout the year, week-end tourism, transit tourism, rural tourism and extreme tourism (N. Ciangă, 2007, P. Cocean and Şt. Dezsi, 2009).

4. CONCLUSIONS

Tourism may bring several improvements in the economic life of rural areas, in the structure of the active population and even for its physiognomy. If initially tourism represented only an additional source of income for the people who are involved in the business, in time this may become their main job. The long-term effects are multiple and benefits are shared with the entire rural community. Therefore, the villages on Feleacu Hill may experience a restructuring of the active population as the population engaged in the primary (agricultural) sector declines and the population working in the tertiary sector, specifically tourism and hospitality services, multiplies.

DANIELA-LIVIA GHEORGHIEŞ

The migration of young people may be reduced as they may become involved in tourism activities and new families may move to these rural settlements as new jobs are available (Aurelia Susan, 1980, p. 191). Agrotourism and rural tourism also favors the development of agriculture, as there is an increasing demand for "bio" fresh and additive-free products, made and eaten on the spot. Tourism generates the development of retail, the emergence of small grocery stores, bakeries, craft shops, and sometimes restaurants, cafeterias and coffee shops, very much to the benefit of both the tourists and the local community.

The changes in the physiognomy of the village buildings is the most striking result of the impact of rural tourism in these settlements. As noticed in the field, traditional ancient houses are renovated, modernized and included in the tourism circuits. The functionality of the houses is increased by the introduction of centralized water and sewerage systems, satellite TV, internet connection and other means of communication. New modern urban-like houses are built, which provide models for other members of the community to renovate their own buildings. There are increasingly more secondary homes, owned by people living in the city, used temporarily by their landlords and sometimes rented for short periods to tourists. Finally, improvement in the road infrastructure makes these villages more accessible and attractive to tourists.

Tourism on Feleacu Hill is developing slowly but steadily. The "great outdoors" represent the main attraction for the city dwellers nearby. Accommodation structures are emerging in an attempt to meet the ever higher and diverse demands of the tourists, whose numbers increase every year.

REFERENCES

- 1. Ciangă, N. (2007), România. Geografia Turismului, Edit. Presa Universitară Clujeană, Cluj-Napoca.
- 2. Cocean, P., Dezsi, Șt. (2009), Geografia Turismului, Edit. Presa Universitară Clujeană, Cluj-Napoca.
- 3. Idu, P.D. (1969), Feleacu, un "sat de coastă" din sudul Clujului, Anuarul Muzeului Etnografic al Transilvaniei 1965-1967, Cluj-Napoca.
- 4. INS (2016), TEMPO-ONLINE database, available at *https://statistici.insse.ro/shop/*, last accessed on 14 February 2016.
- 5. Pop, Gr. P. (2001), Depresiunea Transilvaniei, Edit. Presa Universitară Clujeană, Cluj-Napoca.
- 6. Pop, Gr. P. (2007), Județul Cluj, Edit. Academiei Române, București.
- 7. Savu, Al. (1983), Depresiunea Transilvaniei, în Geografia României, I, Edit. Academiei RSR, București.
- 8. Savu, Al. (1987), Depresiunea Transilvaniei, în Geografia României, III, Edit. Academiei RSR, București.
- 9. Susan, Aurelia (1980), Geografia Turismului, curs litografiat, Universitatea "Babeş-Bolyai", Cluj-Napoca.