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Change of the Demographic Regime and Implications in the Dimensions of Rural Settlements in Transylvania

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ABSTRACT

Our study focuses on the implications which have changed the demographic regime of rural settlements in Transylvania. We analysed the demographic size of these rural settlements taking into account the influence of flows generated by demographic events during 1989-2011. In this study we used the number of people registered at two censuses: 2002 and 2011. The decrease in number between the last two censuses was of about 10.3% in Transylvania, with an average annual decrease of 1.03%. The analysis of the territorial administrative units of the historical region of Transylvania underlines significant reductions in the number of inhabitants, the only exception being Covasna County, where there was an increase of 0.85% in the number of people in rural areas. The most alert rhythm of population decrease is characteristic of Hunedoara County and of Alba County, which during the analyzed period lost over 20% of their rural population. Beside these changes in the evolution of the natural balance, an important role in varying the classification of rural settlements belonged on the one hand to legislation that changed migrations and to administrative units, on the other hand, as a result of transforming villages into urban settlements, either through establishing new communes or through reorganizing the existing ones. The demographic regime has an important role in changing rural classification in Transylvania, but it is not the only factor which determined these changes.

1. INTRODUCTION

Demographic transition is the process referring to populations' movement from the old demographic regime, where birth and death rates had high levels, to the modern demographic regime where these phenomena are decreasing.

There are two ways of approaching this issue from a theoretical point of view: a global one, for a larger area and in a long time, and another in a shorter period and on the level of the geographical areas (provinces) or on the social level (ethnic, medium, and religions).

The latter modality starts from the worldwide diversity of demographic history and of social phenomena.

2. THEORY AND METHODOLOGY

In the last two decades, the rural population of Romania declined with over a million people, from 10.8 million to 9.6 million [13], due to the establishment of a negative natural growth and to an external intense migration [3, 4, 6, 12]. After 1990, through the development of the main demographic indicators, including the segment of rural population, Romania became part of the western European countries group described in the literature on the theory of the second demographic transition [1, 2, 8,]. So, birth and fertility rates have declined substantially, the divorce rate has increased, there appeared changes in the marriage age and the age of the first birth, as well as in the number of children born outside marriage.

Changes occurred after 1989 in the political system, in economy, in social life, as well as in people's mentality, influencing their demographic behaviour. The study "Generations and Gender"[14] shows that very few couples want more than one or two children.

The complex changes, resulting from the transition from the communist regime after the revolution of 1989, have influenced the demographic evolution in Transylvania for the next two decades. The population's dynamics and structure in this province accurately reflect recent social, economic, and political developments. After 1990, in Transylvania, some change occurred in the general demographic regime. If until 1990 the birth rate exceeded that of mortality, after 1990, for the majority of the counties in this region, the situation reversed.

2.1. Changes in administrative territorial organizations

To achieve the correct correlations between changes in the demographic regime and changes in the rural settlements classification, we need a summary of the changes occurring in the administrative-territorial organizations of the region and their impact on the classification of rural settlements. The amendments in the administrative structure of the analyzed territory occurred mostly after the 2002 census and were produced by the enforcement of law no. 83/2004 of 5 April which declared some cities as villages, of law no. 84/2004 of 5 April which set up villages, and of law no. 67/2005 of 23 March which established new villages.

These also brought changes to Alba County where, through the reorganization of Călnic Commune, Cut Commune appeared.

In Braşov County also there were two new communes: Augustin (after the reorganization of Ormeniş Commune) and Drăguş (that emerged from Viştea). Under these conditions, the fact that Ormeniş Commune moved from the medium-sized communes category (2,501-4,000 inhabitants) to the small ones (1,001-2,500 inhabitants) was a result of reorganization and not only a result of the changes in the demographic regime. This administrative unit is maintained among the medium-sized communes from 1990 until 2004 when it was reorganized.

Bistriţa-Năsăud County was modified by the appearance of two villages: Runcu Salvei (emerged from Salva) and Ciceu-Mihăieşti (emerged from Petru Rareş). The two reorganized communes changed from large communes (4,001-5,500 inhabitants) to medium-sized ones (2,501-4,000 inhabitants), the cause being other than the demographic regime. Similar situations were characteristic in Covasna County, where from Malnaş Commune other two communes emerged: Bixad and Micfalău.

The biggest changes took place in Harghita County where six new territorial units appeared: from

Sâncraieni village, Leliceni, and Sântimbru emerged (changing from a large commune – with over 5,500 inhabitants, into a medium-sized one); Siculeni Commune is reorganized and therefore the villages Ciceu and Racu appeared; thus, the Siculeni Commune changed its position in the hierarchy of territorial units, from a large village (over 5,500 inhabitants) into a medium-sized one (2,501-4,000 inhabitants).

Table 1. Transylvania. Evolution of the number of communes between 1991 and 2011.

County	Total number of communes		
	1991	2002	2011
Alba	65	65	65
Bistriţa-Năsăud	53	53	53
Hunedoara	56	55	55
Mureş	89	90	87
Sălaj	54	54	51
Sibiu	53	53	53
Harghita	51	58	58
Covasna	33	40	40
Cluj	74	74	74
Braşov	41	43	43
Total	569	585	579

The two newly established communes fit into the small (1,001-2,500 inhabitants) and medium-sized categories. Also in Harghita County two more villages appeared after some reorganization: Porumbeni (a small commune) emerged from Mugeni (a commune which changed from large into a medium-sized one) and Satu Mare (a small commune) emerged from Brădeşti (initially a medium-sized commune, then a small one).

3. THE NATURAL BALANCE OF POPULATION

In order to study the natural movement of population in Transylvania in the period 2002-2011 it was necessary to analyze the values of birth and death rates, values taken from the Statistical Yearbooks of counties. Demographic factors influenced birth rates by changing the demographic behaviour that was deliberately conditioning and limiting the number of children born in a family. Economic and social factors influenced birth rates. Full employment of women and urbanization (rural population came to town and took some of the demographic behaviour of the urban population – the small number of children) and young people leaving villages had a negative influence on birth rates in rural areas.

Alba County was characterized by a modern demographic regime throughout this period, but birth rates fell sharply from about 12‰ in 1990 to about 8‰ in 2011, which resulted into a natural increased deficit, while the mortality rate was relatively constant, about 14‰ at the beginning and end of the studied period,

but with some fluctuations between 1998 and 2004. Under these circumstances, the number of inhabitants decreased continuously in Alba County. However, there were regions characterized by increases in the number of inhabitants in the west and north of the city of Alba Iulia and in the west of Câmpeni town. These were a result of the polarizing of urban centres, therefore not a result of the natural balance but of the migratory one.

Except for these areas, in the communes of Alba County, the general trends of population decrease (characteristic of the existing demographic regime) were present. As in the previously analyzed cases, in Alba as well there was an increase in the number of very small and small communes, while the number of medium-sized communes, the large and the very large ones, decreased.

Mureş County was characterized by an increase in the number of very small communes, with six units, while the number of local units from the other categories was reduced. In this county two new administrative-territorial units appeared through the reorganization of the existing ones. Four communes changed their hierarchical position because of the negative impact of the natural balance.

In Harghita County changes in the classification of rural areas appeared, on one hand, because of administrative and territorial reorganizing and, on the other hand, because of the modern demographic regime characteristic for the period after 1991.

For this county an increase in the number of small and medium-sized communes took place, from 13 to 25 for the first group and from 19 to 21 for the second one. Other types of territorial units registered decrease. In the case of Bistriţa-Năsăud, Braşov, Sibiu, and Covasna, things were slightly more complicated in terms of demographic regime in the sense that there were variations in the natural balance in some situations stabilized in a modern demographic regime, in other cases keeping the regime of advanced tradition. Bistriţa-Năsăud County registered fluctuations, birth rates being lower than those of mortality until 2003, then the latter exceeding the former.

During this period there were trends to overcome the birth rate by the mortality rate, for example in 1996 the two indicators were approximately equal but after this year the birth rate overpassed the mortality rate. Another interval marked by changes was 2001-2002, when mortality rates exceeded birth rates after which the situation reversed so that after 2003 there were more deaths than births. Transferring these fluctuations into the demographic regime we could say that even in 1996 this county was in a demographic transition regime, where the birth rate was maintained at values greater than mortality rates, but then they were low and mortality increased; a second period was 1996-2003 in which we can talk about advanced

demographic transition. There is a tendency for the number of deaths to exceed those of births because after 2003 the modern demographic regime was stabilized and characterized by a negative natural balance.

In these conditions, the analysis of the hierarchy of rural settlements in Bistriţa-Năsăud should be made on two periods: between 1990-2003 and after 2003. In the first interval according to the demographic transition regime, no changes should appear in the hierarchy of rural settlements because the natural balance tends to zero or at its best should rise in the hierarchy because even if it tends to zero, the natural balance remained positive.

In this sense it is observed that if in the year 1991 Monor village was a very small one, in 2002 this rised in the hierarchy belonging to small villages (number of inhabitants increased from approximately 600 to approximately 1,600). However, it is observed that some communes have went down in the hierarchy up to the year 2002 (Zagra – changed from a large commune into a middle one; in the same situation Măgura Ilvei commune), but it goes higher in classification Nimigea commune (from a large commune to a very large one).

The second interval is characterized by changes in the hierarchy of four large communes, three medium ones and the small communes' category receives six more. So, the communes Măgura Ilvei, Ilva Mare, Şieu Odorheiu, Mărişelu and Coşbuc pass from medium to small communes and Ciceu-Giureşti change from large to small communes (perhaps following a reorganization of territory on the background of massive migrations, because the number of inhabitants is reduced from approximately 4,900 to approximately 1,600, and the natural balance is not sufficient to explain this change). Changes also appear in the hierarchy from large communes to the medium ones, while the very large ones remain unchanged.

Covasna County is characterized by a modern incipient demographic regime, levelling off after 2005, when the mortality remains higher than the birth rate. After 1990 the mortality rate falls below the birth rate without a great difference between these two indicators. For this county, changing position in the classification of rural settlements does not occur due to the demographic regime but because of the administrative-territorial reorganization resulting into the appearance of six new administrative units: Arcuş, Bixad, Dalnic, Mereni, Micfalău, Valea Mare that cause a decrease in the number of large and very large communes at the same time increasing the number of small and very small ones.

For Transylvania during the period 1990-2011 the only county that was definitely not part of the modern demographic regime is Sibiu, which is in an advanced demographic transition period. This is characterised by the maintenance of a mortality rate

lower than the birth rate, except for the period 1995-1997 and the year 2002 when the former exceeded the latter. Under these conditions, the region was in a period where the number of inhabitants remained constant or slightly increased.

This fact was supported by the analysis of the classification of communes, meaning that there was a decrease in the number of very small communes and an increase in that of small and medium-sized communes. We noticed this decrease in the number of large and very large communes, but this was a result of some communes becoming towns (e.g. Ocna Sibiului and Miercurea Sibiului) or of the reorganization of some communes (e.g. Alma or Boita). Like Sibiu and Covasna

counties, Braşov County was in an advanced transitional demographic regime with fluctuations in birth and death rates regime; five intervals can be identified: before 1990, 1997-1999, after 2002 mortality rates were lower than birth rates and 1990-1997, 1999-2002 when the situation was reversed.

This was transposed into a very small increase in the number of communes, large and small ones, and a decreasing number of medium-sized and large communes. Changes were consistent with the demographic regime linked to the territorial reorganization of communes.

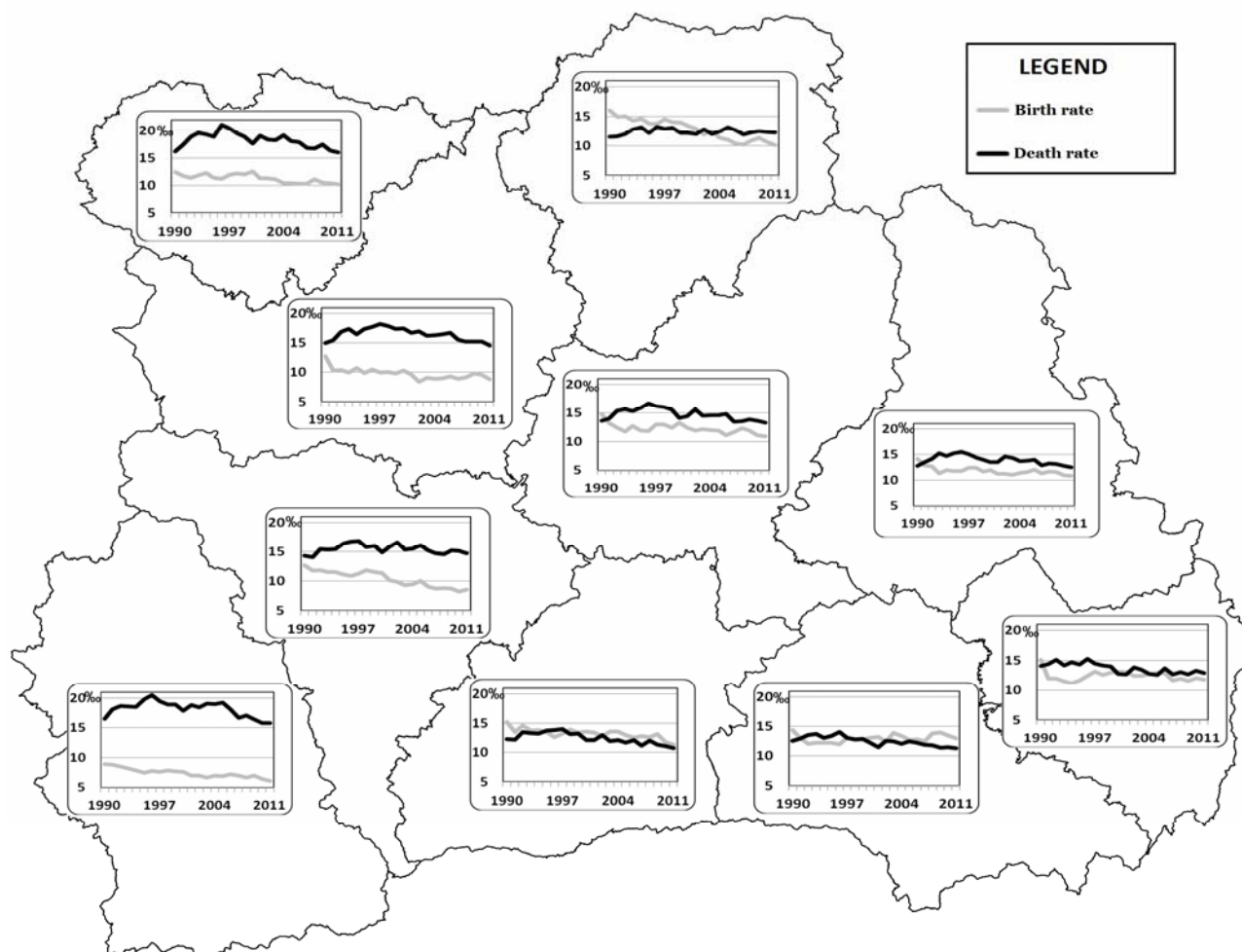


Fig. 1. The natural population balance in Transylvania, during 1990-2011.

3.1. Numerical evolution of rural population during 1990-2011

The geo-demographic decline that started in the previous period in Transylvania was recorded as a general trend in most rural settlements in Romania.

Demographic changes resulted from reduced fertility and increased average life expectancy. Both phenomena were possible due to progress in medical and economic situation. Depopulation was an underway

phenomenon that began in the sixth decade of the twentieth century, determined by the socio-economic pressures that the population undergone during 1948-1960: the nationalization of the means of production and collectivization of agriculture.

After 1950, birth rates began to decrease continuously, a phenomenon that increased after 1960; year 1966 recorded the lowest values in the post-war period. Mortality decreased continuously in close correlation with the improved health system. After

1990, with the abolition of restrictions on the movement of foreign population, an accumulation of factors determined depopulation planning: birth rates decrease and migration (definitive-German population migration and temporary labour migration in the European Union).

At the census from November 2011 the rural population of Transylvania was of 161,0868 inhabitants, representing 16.7% of the rural population of Romania. Compared to 1992, the stable rural population of Transylvania decreased with 11.7% (213,347

inhabitants), a trend consistent with the situation in the whole country (table 2).

Share of rural population in Transylvania fell more than nationally (11.6% vs. 7.5%) and demographic regime varied among counties. Between the two censuses, the most dramatic decline was recorded in Hunedoara (23.6%), in Alba (22%), and in Sălaj (16%). These administrative units were characterized by a significant population loss because of negative natural balance and because of labour migration in the social-economic context created after 1989.

Table 2. The evolution of the number of inhabitants in rural areas during 1990-2011.

Territorial unit	Year			Variation 1992-2011	
	1992	2002	2011	(no.)	(%)
Romania	1,0418,216	1,0245,894	9,635,620	-823,785	-7.5
Transylvania	1,824,215	1,734,102	1,610,868	-254,536	-11.7
Alba	185,547	162,624	144,759	-81,977	-22.0
Bistrița-Năsăud	205,048	198,738	183,350	-62,887	-10.6
Brașov	153,243	152,922	142,762	-51,670	-6.8
Cluj	239,738	230,133	228,622	-52,305	-4.6
Covasna	110,351	110,218	108,072	-43,468	-2.1
Harghita	189,245	181,441	176,372	-54,062	-6.8
Hunedoara	137,019	116,934	104,676	-73,532	-23.6
Mureș	299,058	297,092	259,036	-81,211	-13.4
Sălaj	159,808	149,708	134,238	-66,759	-16.0
Sibiu	145,158	134,292	128,981	-57,366	-11.1

3.2. Dimensional changes in the communes of Transylvania

In order to identify changes caused by the demographic regime in the typology of rural

settlements in Transylvania we classified them according to the number of inhabitants. For the relevance of our analysis, we took into account the communes in the region

Table 3. Dimensional changes in the communes from Transylvania.

County	Very small communes (less than 1,000 inhabitants)			Small communes (1,001 – 2,500 inhabitants)			Medium-sized communes (2,501 – 4,000 inhabitants)			Large communes (4,001 – 5,500 inhabitants)			Very large communes (more than 5,500 inhabitants)		
	1991	2002	2011	1991	2002	2011	1991	2002	2011	1991	2002	2011	1991	2002	2011
Alba	3	6	10	31	33	34	20	17	13	8	6	7	4	3	1
Bistrița-Năsăud	1	0	0	8	10	16	22	24	21	13	12	8	9	8	8
Hunedoara	6	7	12	27	30	27	17	13	15	5	5	1	1	0	0
Mureș	1	3	7	37	35	36	25	23	21	15	18	13	11	11	9
Sălaj	0	0	2	18	22	24	28	23	23	5	4	0	3	3	2
Sibiu	5	5	4	15	19	22	22	21	23	11	7	1	0	2	2
Harghita	0	0	0	13	23	25	19	22	21	7	6	7	12	7	5
Covasna	0	0	1	11	21	20	9	10	9	12	9	10	1	0	0
Cluj	1	1	2	30	34	42	20	19	13	14	12	12	9	8	5
Brașov	0	1	2	12	11	15	17	18	12	7	8	10	5	5	4
Total	17	23	40	202	238	261	199	190	171	97	87	69	55	47	36

Based on the analysis of statistical data collected from the National Institute of Statistics (number of inhabitants for each commune, the census of 2002 and and of 2011) and of statistical records of

communes (population values as of 1 July 1991), we identified five types of communes according to the number of inhabitants. Thus, we differentiated: very small communes (less than 1,000 inhabitants), small

communes (1,001-2,500 inhabitants), medium-sized communes (2,501-4,000 inhabitants), large communes (4,001-5,500 inhabitants) and very large communes (over 5,000 inhabitants).

In Transylvania, the number of administrative units increased from 569 at the beginning of the period under review to 579 at the end of the respective period. We noticed a numerical growth of the territorial units considered as very small (less than 1,000 inhabitants) from 17 to 40 and small (1,001-2,500 inhabitants) from 202 to 261, while the top of the ranking is decreasing. The number of small and very small communes increased from 219 in 1991 to 301 in 2011 at the expense of communes with a high number of inhabitants.

The reason was population decline because of the negative natural balance and because of the change in the administrative status from communes into urban centres.

4. CONCLUSION

In terms of the demographic regime, Transylvania can be divided into two sections: the first one covers the East (excluding Harghita County) and the south characterized by advanced demographic transition, the second being the centre and west of Transylvania which is a modern demographic regime characterized by natural deficit.

The natural balance influences the changes in the classification of rural settlements. Beside these changes in the evolution of the natural balance, an important role in changing the classification of rural settlements had migrations and legislation which amended administrative units either by placing communes into the category of urban settlements, or by establishing new communes after reorganizing the existing ones.

Demographic regime played an important role in changing rural classification in Transylvania, however, it was not the only factor that determined those changes.

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