# POST-COMMUNIST DEMOGRAPHIC CHANGES IN PĂDUREA CRAIULUI MOUNTAINS

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**Abstract:** The Pădurea Craiului Mountains represent the natural, cultural and living environment of some rural communities with a population that has been subject to various quantitative and structural changes. Being endowed with exploitable resources, this area has seen the rise and decline of some industries that which have generated a demographic dynamics characteristic of mining mountain areas. The Revolution from 1989 and the following period have represented a turning plate in the evolution of the economy of this space, with direct implications for the employed population in the economy before December.

Key words: demographic changes, post-communist period, rural area

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#### INTRODUCTION

The Pădurea Craiului Mountains through the features of the natural environment, relief, climate, hydrography represents a favourable territory for the existence and development of human component (Novac, 2006). Testimonies to support this are the traces of continuous dwelling beginning with prehistoric times found in numerous caves developed in the rich karsts of these mountains (Herman et al., 2019). A rural space par excellence where people have adapted to the area so well; therefore, it created genuine identity items such as the landscape of The Pădurea Craiului Mountains, agricultural and pastoral activities, crafts, traditional costumes, wooden churches, customs and traditions (Caciora et al., 2019; Herman and Wendt, 2011; Herman and Gherman, 2016; Herman and Benchis, 2017; Ilieş et al., 2014). The local peoples knew how to benefit from the resources, which were not many and of a modest quality through pottery or burning the lime stone, filling thus the shortcomings of subsistence agriculture.

Of course, there have been, over time, shocks that have produced important demographic and mental changes, the most recent being the communist era

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through collectivization and industrialization and then, after 1989 reconversion to market economy followed by mine closure, free circulation, accession to the European Union or the globalization with its both positive and negative aspects (Baylis and Smith, 2001; Cocean et al., 2013; Held et al., 1999; Herman et al., 2016, 2018; Herman and Grama, 2016; Overland, 2016; Surd et al., 2007).

The changes started in the communist period due to the phenomenon of industrialization, urbanization and rural systematization may be noticed at the demographic level in the Pădurea Craiului Mountains though migrations towards urban areas of Aleşd, Beiuş, Oradea or in the territory towards places with industrial profile, Şuncuiuş, Dobreşti, Aştileu.

The goal of the present study is to observe the demographic changes that took place after the fall of the communist regime accompanied by major changes in the economic, industrial levels but also in the social and mental ones (Muntele, 2010).

## THE METHODOLOGY OF RESEARCH

The boundaries of the Pădurea Craiului Mountains are not always easy to establish, criteria such as geology, morphology and altitude create many opinions among specialists. Taking all these into account Rusu (1988) is the one responsible for establishing the limits in the most complex study of Pădurea Craiului Mountains. However, the administrative boundaries corresponding to UAT (territorial and administrative division) do not correspond to the limits drawn by the famous researcher, which entitles us to apply the principle of generalized integration of component regions (Geography of Romania, I, 1983) and to take the commune as the smallest administrative division considering the human component for which the present study is being conducted. The geographical boundaries would have left places out of the study although they are closely connected with the mountain area.

The statistical data used, in conducting the present study were taken from the website of National Institute of Statistics, analysed and interpreted from the quantity and quality point of view, regarding the numerical evolution, the population density, natural and territorial mobility of the population.

#### GEO DEMOGRAPHIC EVOLUTION

On the numerical evolution of the population in the period of 1992-2012, on the whole area of the study it is observed a negative dynamic of the population, that started according to Filimon (2014) after the year 1996, when it reached its climax of 51 503 inhabitants, amid the crisis from the rural area that faced reduced natural growth and pronounced migration towards the urban area. Contrary to what generally happened after 1990 in the other rural areas that have undergone a re-population phenomenon, in general in the Pădurea Craiului Mountains it continues the downward trend caused mainly by the economical factor mentioned above, magnified by the migration to the west of Europe beginning with the opening of the borders. Therefore, if in 1992 in the Pădurea Craiului Mountains there were a total of 45 715 inhabitants, at the 2012 census, the total population was 38 432 inhabitants, practically a decrease of 7 283 inhabitants (15,93%).

The analysis at the level of UAT (territorial and administrative division) shows us the existence of negative rate. Significant loss of population may be seen in the communes situated in the north-east and south-west of the mountain area,

situated at longer distances from the urban centres, which include villages situated in the central part of the mountain area, hard to reach such as Bratca (16.91%), Bulz (26.20%), Căbești (20.61%), Pomezeu (23.70%), Şuncuiuş (19.94%), Roșia (16.73%). At the opposite pole, there are the communes which are situated at a shorter distance from the urban centres implicitly from the important communication axis (E60, E79), close to the industrial structures from Chistag și Aștileu, Aștileu (11.04%), Măgești (9.25%), Vârciorog (11.82%).



**Figure 1.** Evolution of population at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

## THE POPULATION DENSITY

The uneven distribution of the population is influenced by a number of factors among which are, in the order of their importance, physical geographic factors that can be permissive or restrictive for population settlement, but also historical and socio-economic factors that influence the natural and migratory movement of human groups (Ilieş and Staşac, 2000).

The Pădurea Craiului Mountains are characterized by low altitudes, the average altitude is situated around 650 m, which favoured the appearance of human settlement on their entire surface (Petrea, 2004). There are however conditions that explain the densities below the national average at the entire surface of the mountain area or densities that are very small in some places. The fragmented relief, the large areas covered by forests, the limited resources of water, especially in the central part, the small surfaces and the dispersal of arable land, the extractive industry development in the nineteenth century, have led to differentiations in terms of population density. Obviously, settlements have evolved especially along the valleys, in the peripheral areas, of contact between mountain and depressions, and less in the central area. Therefore, the population density is higher in the peripheral places than the central ones. And in terms of density, we notice the same negative trend for all 12 studied communes, in all three censuses from 1992, 2002 and 2012.

Densities that exceed 50 inhabitants/km<sup>2</sup> are encountered in the communes Aștileu (60.6 inhabitants/km<sup>2</sup>), Măgești (53 inhabitants/km<sup>2</sup>), Pomezeu (56.2 inhabitants/km<sup>2</sup>) and Vadu Crișului (53.7 inhabitants/km<sup>2</sup>). The lowest densities are observed in commune of Bulz (21.2 inhabitants/km<sup>2</sup>), Căbești (26 inhabitants/km<sup>2</sup>), Vârciorog (28.5 inhabitants /km<sup>2</sup>), Roșia (32.9 inhabitants/km<sup>2</sup>) and Bratca (37.8 inhabitants /km<sup>2</sup>).

We note the location of the communes with low population densities in the central area of the Pădurea Craiului Mountains where specific are scattered type of villages, which explains the low densities along with population decline in the whole area. However, the Căbești commune has experienced a dramatic decline during 1992-2002 which may be noticed at the density level, from 71.92 inhabitants/km<sup>2</sup> in 1992 to 29.2 inhabitants/km<sup>2</sup> in 2002.



**Figure 2.** The average density of population reported to UAT (territorial and administrative divisions) in the year 2012

## NATURAL MOBILITY OF POPULATION

Indicators such as birth rate, mortality, natural growth are extremely important for the study of the human component because it highlights the changes that occurred at the demographic level, but also because they may forecast the next changes and therefore being able to intervene through certain measures.

The birth rate represents the dynamic factor, most rapidly influenced by the socio-economic changes and by the structure of the population, which in return influences directly the numerical changes of the population (Ilieş and Staşac, 2000).

Regarding the situation of birth rate in the Pădurea Craiului Mountains, the average of the year 1992 was of12.35‰, decreasing towards the year 2002 with 10.98‰ and 2012 with 9.12‰. The values oscillate from 4.75‰ in Bulz village, with the lowest value, at 15.96‰ in Dobrești village.

The total number of new-borns in the Pădurea Craiului Mountains was for the year 1992-571, and for 2012-365, with a steady decline in birth rates.



**Figure 4.** Evolution of birth rate at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

In the year 1992 the mortality rate in the Pădurea Craiului Mountains was 16.17‰, 15.57 in 2002 and 15.49 in 2012, resulting in a decrease of just 0.68‰. The highest values are noticed in the communes of Pomezeu 18.48‰, Bratca 18.41‰, Vârciorog 18.22‰ and Bulz 18.06‰, at the opposite pole being the Vadu Crişului commune with 10.72‰.

The number of deaths in the Pădurea Craiului Mountains were for the year 1992-748, 2002-634, and for 2012-589.



**Figure 5.** Evolution of mortality rate at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

At the level of the Pădurea Craiului Mountains the natural balance was negative at the level of the year 2012, it has the value -6.37‰. Analysing the situation at the level of the communes there are differences between the values of the natural balance, the only commune with natural growth being Dobrești with 1.9‰, explainable through the highest rate of natality from the area due to a significant percentage of Roma population. The communes with the highest negative values, with increased mortality are Bulz -13.31‰, Bratca -11.24‰, Vârciorog -11.71‰, Remetea -9.98‰, Pomezeu -8.56‰, whereas the communes with the lowest deficit have the natality over the average from the area Vadu Crișului -1.25‰, Căbești -3.24‰, Aștileu -3.65‰, Roșia -5.04‰.



**Figure 6.** Evolution of natural balance at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

#### **TERRITORIAL MOBILITY OF POPULATION**

At the level of the Pădurea Craiului Mountains it is noticed an increase of the average values of immigration from 8.52 in the year 1992 and 7.55 in the year 2002, to 13.65 in the year 2012. The attractive areas with values over the region average are situated relatively close to urban centres (Oradea, Aleşd) like Vârciorog (17.36) or where there are industrial activities that generate jobs such as Aştileu (16.28) or Măgeşti (24.65). The areas that are less attractive in which immigration has the lowest values are situated towards the less accessible central area Roşia (6.71), Pomezeu (9.58), Dobreşti (10.26).

The total number of arrivals at the level of the Pădurea Craiului Mountains were for the year 1992-409, 2002-318 and for 2012-524.

Being included in the specific trend of the Romanian rural area which faces population loss in favour of the urban, we observe this phenomenon in the case of the Pădurea Craiului Mountains too, where the average emigration indicators are higher than the immigration indices and increasing from the census from 1992 (14.61) to the one from 2012 (15.66). The areas with the highest loss in the year 2012 are in Dobrești (21.10), though the only commune that has registered natural growth, (17.79), Vadu Crișului (18.20), Șuncuiuș (16.56). The areas with emigration indices below the region average are Remetea (10.66) where we can talk about an attachment of locals to their place of origin, Roșia (13.00) and Căbești (10.82) which after significant losses in the 90's seem to have reached a demographic balance.

The total number of departures at the level of Pădurea Craiului Mountains were for the year 1992-684, 2002-599 and for the year 2012-630.



**Figure 7.** Evolution of immigration at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)



**Figure 8.** Evolution of emigration at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

The average of the Pădurea Craiului Mountains was slightly negative -2.01, there are yet population losses caused by migration. The communes with negative migration growth that record population losses are the majority Dobrești (-10.84), Pomezeu (-8.21), Roșia (-6.29), Vadu Crișului (-4.74), the communes with positive migration growth are Măgești (9.56), Remetea (2.41), Vârciorog (3.91) și Căbești (0.54).



**Figure 9.** Evolution of migratory growth at the level of UAT (territorial and administrative divisions) (1992, 2002, 2012)

#### CONCLUSIONS

The anthropic component from the Pădurea Craiului Mountains is in the current moment in imbalance being characterised by demographic aging. In all twelve communes analysed in the present study there is a general negative balance, with a high average value of -9.21, due in particular to low birth rates and high mortality rates. The trend of demographic aging is more pronounced in less-favoured areas, but with a very large patrimonial value Bulz (-15.21), Roșia (-11.33), Bratca (-11.44). In the case of communes Pomezeu (-16.77) and Roșia (-11.13) the value of the overall demographic balance is negative due to the general losses caused by the high rate of both natural mobility and mechanical mobility.

These communities have adapted to the restrictions imposed by natural conditions, to agricultural restrictions, through diverse activities, but also through geographical mobility, to ensure subsistence. The attachment to the place of origin, to the land has led to the perpetuation of a traditional way of living, has created that memory, such a valuable identity that may be used and that may revitalize, but which is at risk to be lost forever without immediate action.

The programmes to stimulate the young generation to return in the rural areas are of great importance, also creating necessary specializations in the mountain area to be thoroughly studied in the existing education institutions, are measures that enable a further development.

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