

IDENTIFYING POORLY POLARISED AREAS AND THE PERSPECTIVES OF POLICENTRIC DEVELOPMENT IN BUZĂU COUNTY

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Abstract. Identifying poorly polarised areas represents a major objective of the interdisciplinary enterprise to attenuate territorial dysfunctions, the methodology being an instrument indispensable to decision-makers especially and to the policy of regional development in general. The individualisation of poorly polarised areas from Buzău county was done according to five criteria, each one involving a series of representative indices for emphasising territorial disparities. Thus, the following criteria were quantified: the intensity of depopulation; the divergence of fluxes to various polarising centers; the precariousness of public services, including the minimal ones; low accessibility to modern means of transport; the low general level of education. As a result of centralising results, there follows that Buzău county features five poorly polarised areas, which face numerous dysfunctions for the solving of which the adoption of a viable strategy is necessary to result in a balanced territorial development. At present, one can notice the existence of some settlements (*Buzău, Râmnicu-Sărat, Nehoiu, Pătârlagele, Berca, Pogoanele*) that can act as potential centers of development, which might determine the attenuation of territorial disparities and the integration of poorly polarised areas.

Rezumat. Identificarea ariilor slab polarizate și perspectivele dezvoltării policentrice în județul Buzău. Identificarea ariilor slab polarizate reprezintă un obiectiv major al demersului interdisciplinar de atenuare a disfuncționalităților teritoriale, metodologia fiind un instrument indispensabil factorilor de decizie, în special, și politicii de dezvoltare regională, în general. Individualizarea ariilor slab polarizate din județul Buzău s-a realizat pe baza a 5 criterii, în fiecare fiind agregată o serie de indicatori reprezentativi pentru sublinierea disparităților teritoriale. Astfel au fost calculate: intensitatea depopulării; divergența fluxurilor spre diferite centre polarizatoare; precaritatea serviciilor publice, inclusiv a celor minimale; accesibilitatea redusă pentru căile de comunicație modernizate; nivelul general de instruire scăzut. În urma centralizării rezultatelor se constată că județul Buzău prezintă 5 arii slab polarizate, care se confruntă cu numeroase disfuncționalități, pentru a căror rezolvare este necesară adoptarea unei strategii viabile, care să inducă dezvoltarea teritorială echilibrată. În prezent, se observă existența unor localități (*Buzău, Râmnicu-Sărat, Nehoiu, Pătârlagele, Berca, Pogoanele*) care se pot constitui în potențiali poli de creștere, ce pot determina atenuarea disparităților teritoriale și integrarea ariilor slab polarizate.

Key words: poorly polarised areas, indicators, centers of development

Cuvinte cheie: arii slab polarizate, indicatori, poli de creștere

INTRODUCTION

Buzău county lies in the south-east of Romania, as a part of the South-East Development Region. The county's area is 6.102,6 square kilometers (2,6 % of the country's surface); the main features between its limits range from north to south as follows:

the mountain area, represented by the Buzău Mountains and partly by the Vrancea Mountains, the Buzău Subcarpathian hills in the center and the plain in the south.

In point of territory and administration, the county consists in two cities, three towns and eighty-two villages, among which there is a range of territorial differences. On this basis, poorly polarised areas will be identified, according to which viable development strategies can be established.

Identifying poorly polarised areas represents a major objective of the interdisciplinary endeavour to attenuate territorial dysfunctionalities and methodology is an indispensable instrument for decision makers, especially, and for the policy of regional development, in general.

The individualisation of these areas was done according to five criteria, each one involving a series of representative indices. Thus, the following criteria were quantified: the intensity of depopulation; the divergence of fluxes to various polarising centers; the precariousness of public services, including the minimal ones; low accessibility to modern means of transport; the low general level of education.

2. THE INTENSITY OF DEPOPULATION

This criterion was analysed for the interval 1966-2002, and it was worked out according to the formula:

$Id = (P_n - P_0)/P_0 * 100$ where in

P_n is the population at a given moment;

P_0 is the population at a previous time.

After the centralisation of data, one finds out that a great number of villages features a high degree of depopulation, against a background of migrations that began to occur intensely in communist times. In order to observe in as much detail as possible the dynamics of this process, four stages were individualised:

-1966-1977 is the interval when most villages (51,7%) recorded positive values, due to the fact that the natural balance was kept high and the migration balance was positive or only had a slight decline.

The lowest negative values were recorded in certain territorial units of administration of the Curvature Subcarpathians, as well as in some area situated at the county's eastern and south-western periphery, mainly due to the mechanisation of agriculture and the emigration of a large percentage of the population towards urban centers in which industry began to develop (Figure 1).

-1977-1992 is the interval in which the most profound process of depopulation for the space under analysis, 94% of the villages having negative values, the Subcarpathian area being the most intensely affected (Figure 2), as well as the outer peripheral area in the south, east and west.

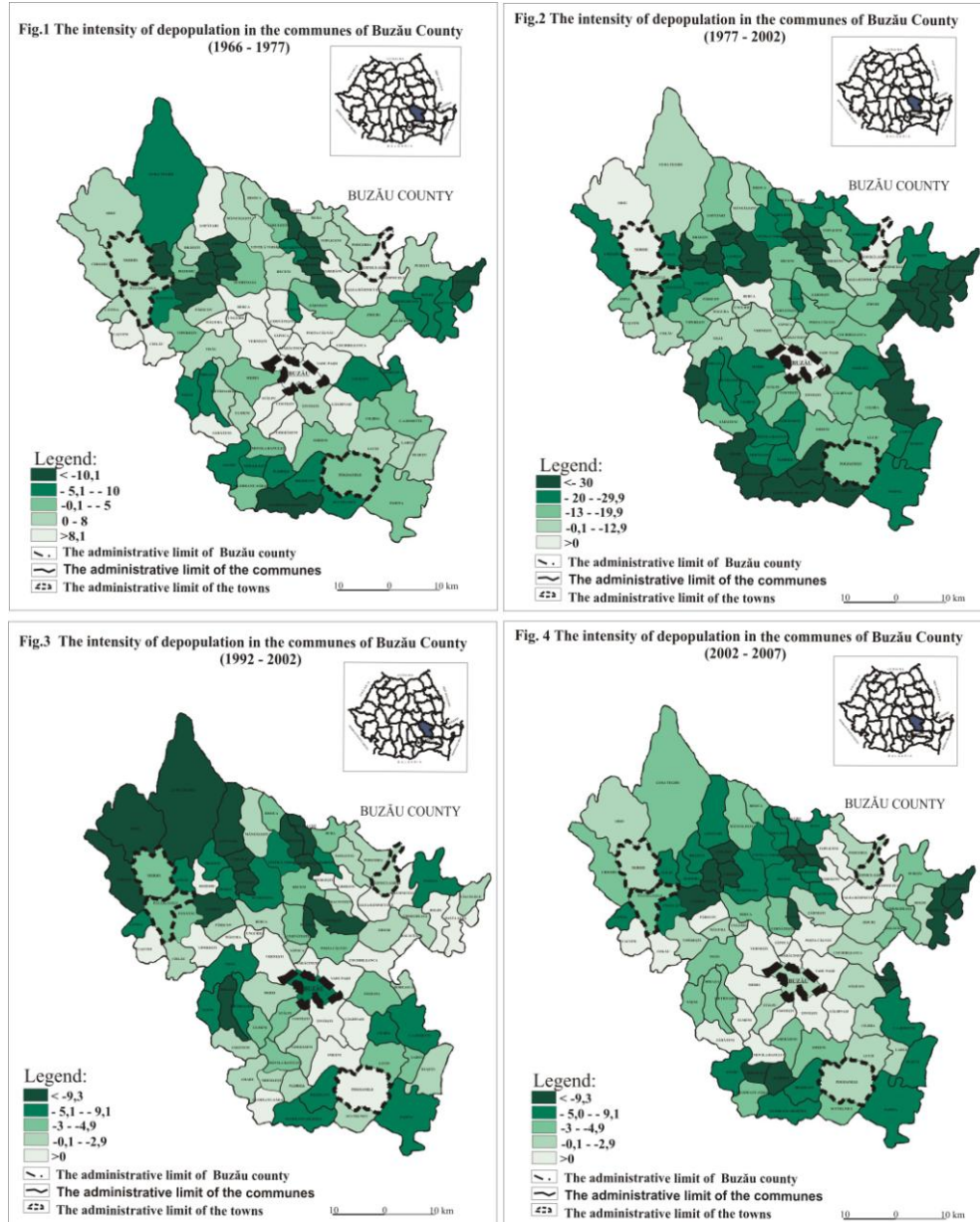


Fig. 1 – 4 Intensitatea depopulării pe comune, în județul Buzău

Nehoiu and the cities of Buzău and Râmnicu-Sărat had positive values, due to forced urbanisation and industrialisation which led to the creation of jobs that attracted a large percentage of the population in Buzău county. In the village of Berca one notices an influx of population from the neighbouring areas, due to the development in this area of some industrial units which added to the already existing ones in the oil industry. Also, a large

percentage of the workforce was mobilised in the village of Siriu due to the construction of a dam on the river Buzău.

Overall, one notices that in the interval 1966-1992 the highest values were present in the cities of Buzău and Râmnicu - Sărat, the degree of depopulation of villages being in direct ratio with the one of urban population increase and with the extension of cities and larger towns (Berca, Pârscoav and so on).

-1992-2002 represents the stage in which the intensity of depopulation decreases sharply, the values being lower by more than 30% as compared to the previous interval, since, due to the change of political regime, towns no longer constituted a priority in economic development, therefore a series of industrial activities declined and this resulted in a lower attraction of towns.

The intensity of depopulation featured however negative values in 76,4% of the administrative units, due to the fact that at the beginning of this interval, under the conditions of removal of communist restrictions, some inhabitants migrated towards more developed settlements. However, one notices that in most administrative units the intensity of depopulation featured values as low as -5%.

For the first time, towns (except Pogoanele) featured negative values, due mainly to the economic regress that reflected in a series of redundancies, which determined the return of a part of the population in the native villages. The most affected villages were those situated in the Subcarpathian area (Figure 3), but also in the contact area between foothills and mountains, as well as some villages in the county's western side.

-2002-2007 was an interval in which the trend of population reduction accentuated, especially in the central and southern-central areas of the county, due to the lower attraction of towns, which no longer appeared as a viable alternative. However, most administrative units (77,6%) still featured negative values of depopulation intensity, the most intensely affected being the settlements in the Subcarpathian area, as well as the south-eastern and south-western frame of the county and three villages from the eastern side (Figure 4). People emigrated because the agriculture they practiced in their native villages was only for survival, and there were no other activities which might determine an increase of revenue, therefore most young people prefer to work in towns which are more developed economically.

The mountain area that used to feature high intensities of depopulation in the previous interval saw a repopulation in this stage, due to people's commuting, especially to Nehoiu and Pătârlagele, but also to farther towns, and they do not emigrate permanently.

Also after 1992 and especially after 2002, one notices that the villages around the cities of Râmnicu Sărat and Buzău feature positive values, due to the fact that their inhabitants prefer to live in rural areas instead of moving to town, whereas some of the inhabitants of the two cities move to nearby villages.

3. THE DIVERGENCE OF FLUX TOWARDS DIFFERENT POLARISING CENTERS

In time, due to economic difficulties and to a low living standard in general, the population migrated from native villages to more developed centers, which could provide better living conditions. At present, the main polarising center is the city of Buzău (134 619 inhabitants in 2007), which, due to its status as administrative siege attracts most of the

investments, ensuring a high offer of jobs (compared to the rest of the county), which leads to a concentration of the population of the whole county and beyond.

Other polarising centers that exert their influence on the space under analysis are as follows:

Râmnicu-Sărat, where industry and commerce are developed at present, concentrates the population situated in adjacent areas, as well as some inhabitants from nearby villages situated in the county of Vrancea.

Nehoiu, which hosts companies that are active in industry (wood industry, power, textile industry and others), as well as trade, generally polarises inhabitants from the upper reaches of the Buzău River, but also those from Bâsca Rozilei and Bâsca Chiojdului.

Pătârlagele, with agricultural and industrial functions generally attracts the population from nearby villages.

Beside urban settlements, in the county there also are a series of settlements on whose territory industrial companies are active, so they polarise the population in the nearby areas.

Berca (where two oil companies are active), concentrates mostly the population situated in the hydrographic basins of Sărățel and Slănic, but also the one from the middle course of the river Buzău.

Pârscov polarises the population from the villages of Odăile, Bozioru, Brăești, Cozieni, and the towns of Săhăteni and Cislău polarise the population from adjacent settlements.

A disadvantage for Buzău county is the fact that in its vicinity there are urban centers with rank 0 and I, such as București, Ploiești, Brașov and even Brăila and Galați, which, due to the services they provide, polarise a significant percentage of the population in Buzău county.

Beside those, there are smaller towns in other counties, such as Făurei, Mizil, Urziceni, Slobozia which polarise some inhabitants from nearby villages.

The precariousness of public services, including the minimal ones, represents an important criterion for the individualisation of poorly polarised areas; several representative factors must be taken into consideration:

- the number of hospitals;
- the number of drug stores;
- the number of dental care cabinets;
- the number of medical doctors;
- the number of secondary schools.

On the territory of Buzău county there are six hospitals, three of these being located in the city of Buzău (the largest one is the County Hospital, which features several sections with specialised medical staff), Râmnicu-Sărat and Nehoiu, three other such units being situated in Săpoca, Smeeni and Vintilă Vodă.

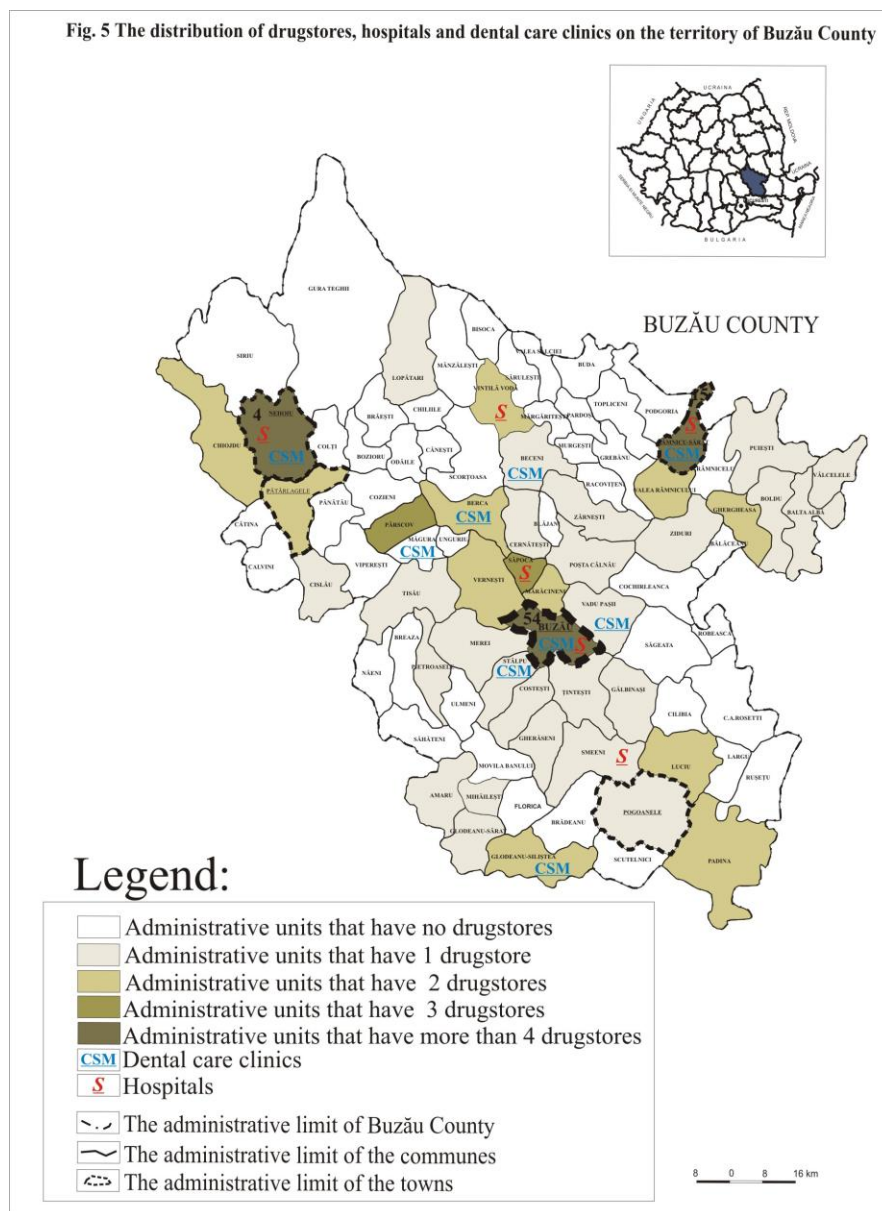


Fig. 5 Distribuția farmaciilor, spitalelor și cabinetelor stomatologice în județul Buzău (unități administrative: fără nicio farmacie, respectiv cu 1, 2, 3 și mai mult de 4 farmacii; CSM: cabinet stomatologic; S: spital; limite administrative de: județ, comună, oraș)

Minimal medical services are poorly developed, especially in the county's rural area, which accentuates the towns' degree of polarisation. Thus, in most villages, medical services are represented by a dispensary, usually situated in the village center or in one of the more developed hamlets which in numerous cases features precarious facilities and where the general practitioner consults patients several times a week. The other hamlets in the village are devoid of any sort of medical assistance and their inhabitants have to go to great distances in order to reach the settlement where the general practitioner works.

In 45,9% of the villages, only one GP is active, who in most cases does not live in that area, therefore most inhabitants prefer to be enlisted in the medical clinics in towns, where the quality of medical services is higher. Also, in 5,7% of the villages there is no GP present and the inhabitants have to go to nearby villages in order to benefit from such services.

In 48 villages from the county, which represents 58,5% of the rural space, there is not even one drug store (Figure 5) and the inhabitants have to go to settlements where such units exist, or to the city of Buzău, where the eight pharmaceutical deposits present on the county's territory are also situated.

There are dental care clinics in only eight settlements, therefore most of the population goes to Buzău in case they have such problems.

Secondary schools are factors of attraction that contribute to accentuating the central place of one settlement over others. All over Buzău County (Image 4), secondary schools are concentrated in only 8 settlements out of 87 administrative units. Among these, 58,6% are situated in the city of Buzău and they are estimated to be the best in the county, therefore they attract numerous pupils: National College B.P. Hașdeu, Mihai Eminescu Secondary School or the Pedagogical Secondary School, the only one of its kind in the county, for those who want to become educators.

4. LOW ACCESSIBILITY BY MODERN MEANS OF COMMUNICATION

Accessibility is very important for a settlement, which influences the development of economic activities and the inflow of investments in that area, and so does the level of the transport system.

In Buzău County the highest density of roads is to be found in the plain area and at its contact with the Subcarpathians. In the Subcarpathian area itself, as well as in the mountains, modern roads follow especially the valleys of main rivers (Buzău, Bâsca Rozilei, Bâsca Chiojdului, Bălăneasa, Slănicul and so on). Village roads in many cases are inaccessible for cars and trucks and can only be used by carts and wagons.

The city of Buzău is the main road node, as it is located at the intersection of several roads, among which European motorway E85, which connects it to Bucharest and to Northern Moldavia.

If in the county's southern and central areas the settlements are situated along modernised roads, in the rest of the county they are crossed by obsolete ones, which in certain times of the year become impassable, which leads to the villages' isolation.

The city of Buzău is an important railway node both for goods transport and for passengers, as it offers connections to the country's other areas, and inside the county there is a simple railroad to Nehoiu.

Accessibility on roads also influences the public transport system, which is provided by means of buses and vans down pre-established routes, which begin and end in the city of Buzău, so that optimum connections are ensured with the rest of the county. Latley, an ever-accentuated dynamics of private companies can be noticed, which ensures public transport to all the neighbouring villages and counties.

5. A LOW LEVEL OF GENERAL EDUCATION

Overall, the function of culture and education represents one of the most obvious elements generating relationships among settlements.¹

The level of education is very important, as it represents one of the elements that generate relations among settlements, which is reflected in the settlements' degree of development and which provides clues regarding subsequent evolution, which constitutes an important factor in attracting investments that are influenced by the quality of the workforce.

Within this indicator, the ratios of secondary-school graduates and university graduates to the total of the population were calculated, as these are factors that allow the identification of poorly polarised areas.

The ratio of secondary-school graduates is low, due to the concentration of high schools in eight settlements, and only some children from rural areas have access to these institutions, due to the financial costs which such studies involve. The highest values (over 14%) are present in the central area (Figure 6), where most secondary schools in the county are concentrated.

In individual administrative units, most of the graduates (56,64%) come from Buzău and Râmnicu-Sărat, as well as from Nehoiu and Pătârlagele, which underlines the fact that access to this type of education is problematic for rural settlements.

The ratio of university graduates to the total population has very low values, mostly under 1,2% (Figure 7), due to the high financial costs and to the low ratio of secondary-school graduates, as well as to the lack of a big university to polarise the population.

Most university graduates (66%) are concentrated in the city of Buzău, then in Râmnicu-Sărat, due to the higher living standards and to the presence of companies that employ university graduates. This situation is also facilitated by the fact that after 1990, in Buzău, several state-owned colleges were founded (The Buzău Economic College, which is a branch of the Academy for Economic Studies in Bucharest, the Buzău Teachers' College, a branch of the University of Bucharest, as well as the Number One Technical College Buzău, a branch of the Polytechnic University of Bucharest) as well as some private ones (branches of the universities Spiru Haret and George Barițiu). The students' area of origin mostly coincides with Buzău County, sometimes extending to neighbouring counties, too (Vrancea and Brăila).

¹ Ianoș I. (1987), *Orașele și organizarea spațiului geografic*, Ed. Academiei Republicii Socialiste România, București;

Fig. 6 The ratio of secondary - school graduates to the total population

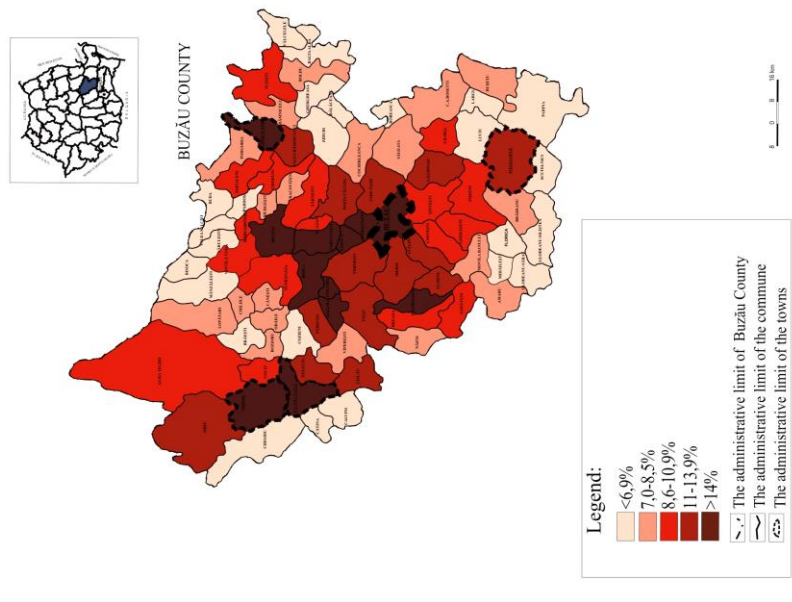
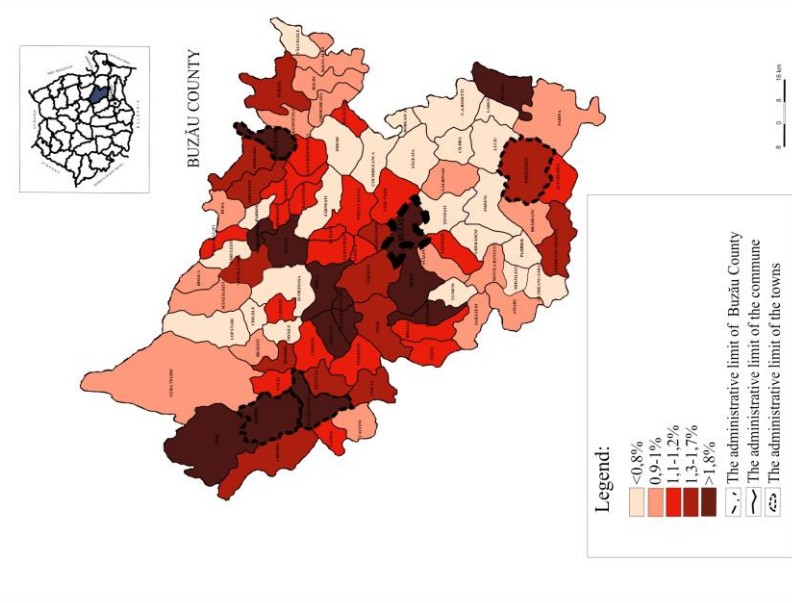


Fig. 7 The ratio of university graduates to the total population



Pondere a absolvenților de gimnaziu (fig. 6) și a absolvenților de învățământ universitar (fig. 7) în populația totală a județului Buzău

6. ELEMENTS OF POLYCENTRIC DEVELOPMENT

Following the centralisation of results, one notices that in Buzău County there are **five poorly polarised areas**, which confront numerous dysfunctionalities for the solution of which it is necessary to adopt a viable strategy that should result in a balanced territorial development.

With a view to revigorating these areas, potential growth poles can be identified, represented by settlements that have a number of advantages over adjacent ones and which, by implementing some activities in accordance with the potential they have, can determine the attenuation of territorial disparities and the integration of poorly polarised areas.

The most extended and the most profound poorly polarised area (I) is the one situated in the Buzău Subcarpathians (Figure 8), which, although it has resources apt to be turned to value, also has a deficit of infrastructure, which influences emigrations to a large extent and therefore leads to negative depopulation values, poor quality medical services, as well as a low level of education.

To increase this space's dynamics, three potential growth poles can be identified, the most important one being Berca for the villages situated on Sărăţel Valley and even for those on Slănic Valley, but also Vintilă Vodă and Beceni for the settlements situated on Slănic Valley. These two settlements can perform complementary activities, bearing in mind that there is a secondary school in Beceni and a hospital in Vintilă-Vodă, as well as small industrial activities which benefit from a developed infrastructure.

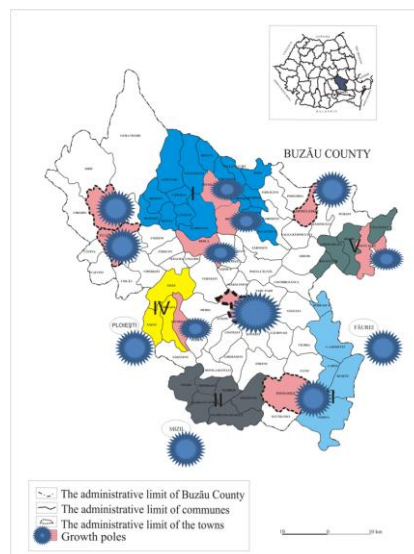


Fig. 8 *Poorly polarised areas and the growth poles*
Ariile slab polarizate și polii de creștere

Berca is the largest village in the county, which, although it fulfils the current legal conditions to be given the town status, is not interested in this administrative change, due to the fact that it would hinder or even limit its access to certain structural European funds.

This settlement polarises part of the population situated in the neighbouring rural area, as it has industrial activities, mostly connected to the oil industry.

The other four poorly polarised areas lie at the periphery of Buzău County, as they are situated close to the limits of other counties; they have a much better infrastructure in what regards the means of communication comparatively with the first poorly polarised area, but it provides poor quality medical services to the inhabitants in the area, as well as a low level of education. These areas are located among several towns, which at present is a disadvantage, as it determines negative values of depopulation intensity, but it can constitute an advantage in the future, with a view to a higher possibility of development of one of these potential poles, which should determine the territorial re-balancing of Buzău County periphery against its center.

Areas II and III are situated near the town of Pogoanele, which demonstrates that it does not have the necessary capacity to polarise the population in the nearby villages. In the future, towns like Urziceni, Mizil, Slobozia, Făurei and Pogoanele can be potential poles of growth, which as far as we are concerned represents a vital point, bearing in mind the geographical position that situates it between the two areas.

The fourth poorly polarised area lies in the county's west and it consists in four villages; to revitalise it, the town of Pietroasele might have an important role, which has a touristic potential, as well as the cities of Buzău and Ploiești.

The last large poorly polarised area is located in the county's east and it consists in five villages; as potential poles of growth, it has Balta Albă (where the spa Balta Albă used to operate in the past, and it might be revitalised) and Râmnicu-Sărat.

Overall, the most important polarising center in the county is the city of which concentrates a large spectrum of activities, as well as high quality services. The fact that Buzău was for a long time the only city in the county determined the emergence of a diversified economy, emphasised by its role as an administrative siege. The role of a polarising center for the city of Buzău has diminished by comparison with the communist period, mainly due to the economic restructuring.

The second pole of growth is the city of Râmnicu-Sărat, which has a lower polarising power, a situation proven by the fact that many of the adjacent settlements feature dysfunctionalities.

As a conclusion the indicators helped to identify 5 weakly polarised areas, that must be revitalised by some possible growth poles that can determine the territorial reequilibration and the augmentation of the way of life.

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