

DEMOGRAPHIC AGEING IN ROMANIA'S RURAL AREA

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Abstract: Europe has faced for several decades and is still facing an ageing process of its population. Within it, Romania, a country, striving to successfully integrate into the European Union, is also experiencing the same process. The ageing process of the Romanian population started at the beginning of the 20th century and evolved progressively, ever since, with significant visible rates in the rural areas. Romania's population age structure, at the beginning of the Third Millennium, was, according to international experts, not significantly aged compared to populations of the economically advanced countries of Europe. Due to falling birth-rates and the labor emigration rush, the ageing process of the Romanian population has become increasingly serious, argued by a rate of 19.4% over 60-year-old population, of which 24.5% (2008) belongs to the rural area. The main responsible reason for this demographic and social situation is the replacement of the traditional reproduction pattern, mainly characterized by high birth and death rates, with a modern one, characterized by very low rates of the same kind. Low values in natality were, on one hand, the result of a steady regression of fertility, and on the other of, a drop in general mortality, hence the lengthening of the average life-span. To be able to cope with a relatively new phenomenon such as ageing of population, Romania needs to seriously consider adequate measures and steps towards achieving balance. Visionary strategy and plans require, well-grounded medium-and-long-term development programmes especially for the Romanian rural area.

Key words: Demographic ageing, rural area, Romania

Introduction

Human society has had a sinuous evolution throughout history, with moments of prosperity succeeded by crises. However, the last century proved to be extremely dynamic and was marked by numerous processes, most of which with a negative impact on society and who determined specialists to declare that we presently live in a "society of risk" (Beck, 1992).

Some risks were the result of demographic evolution. 200 years ago the danger of overpopulating the planet was intensely discussed, the idea being mentioned in Malthus' "Essay on the principle of

population". However, during the last 50 years the main risk (largely discussed at global level) has become *demographic ageing*.

Numerous studies analyse this phenomenon which "consists in an increase of the share of elderly (over 60 or 65 years old) in the total population" (Rotariu, 2006, p. 78). The fact that this process started with the beginning of the demographic transition almost 100 year ago is unanimously accepted (Congress of the United States, 2005). The first and most affected countries were the developed ones, but the phenomenon is beginning to occur in the developing and the less developed countries as well. The spread of the second demographic transition (characterized by a strong reduction in fertility) from the developed countries towards the other states of the world, followed

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by a third one (determined by international migration) is also largely discussed (Harper, Leeson, 2008).

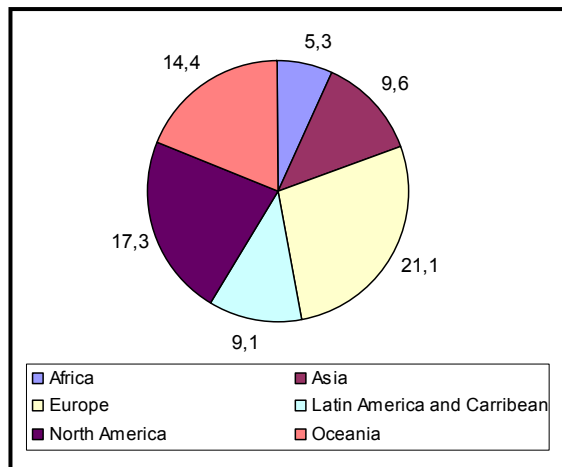


Figure 1. Rate of elderly population (60 years and over) from total population by continents

The analysis of this phenomenon starts with its two main causes: *the decrease of both the fertility rate and the death rate* (Rotariu, 2006; Weil, 2006; Congress of the United States, 2005), the second *increasing the life expectancy*. The effects of the two demographic indicators are combined with those resulted from the indirect impact of some social and economic elements as: the level of education, the beliefs and traditions, the development of the health care system, the standard of living and, per total, the level of general development and economic behaviour of the state.

The impact determined by the process of aging is also discovered in the components of the socio-economic system. Firstly influenced are the demographic components (the increasing share of elderly in the total population, the decrease of the dependency rate and, finally, a increase of the gross mortality rate) (Rotariu, 2006). All the other socio-economic components follow, but the most discussed in the literature are the influences on the pension system and on the health insurance one, finally representing the impact on the financial resources of the state.

In present, the spatial development of the phenomenon is relatively large, but its presence is stronger felt in developed countries, where the medium age of the

population is higher than at the global level (37.3 compared to 26.8) (Weil, 2006). The analysis of the demographic aging index leads to the same results: globally, its value is 38.7%, while in Europe, the most 'aged' continent, reaches 126.2% and in North America 86.1% (United Nation, 2007). The general picture underlines the spatial disparities regarding the share of elderly in the world population (fig. 1). The differences between the developed regions and the developing or undeveloped ones are remarkable.

„Most western style countries have aged continuously over the past century [...]. Europe reached maturity at the turn of the millennium, with more older people than younger” (Harper, Leeson, 2008, p. 1).

The phenomenon is already present in the less developed countries.

„Already two thirds of the world's older population live in less developed regions with the absolute numbers of older people in these regions doubling to reach some 900 million within 25 years” (Harper, Leeson, 2008, p. 1).

Romania is a good example from this point of view. It is a European developing country and it fits perfectly in the category of those with predominant old population. With a share of 19.5% of elderly population and the aging index value of 130.3%, Romania is definitely one of the 'aged' countries in Eastern European, but it is in a better economical position as the population dependency rate has lower values (fig. 2, 3).

Population ageing process in the Romanian rural area

Characteristics of the rural space

The rural area in Romania covers 212,700 km² (89% of the country's territory), has 212,700 km² agricultural surface (91% of the country's agricultural area), and the village population owns 80% of total agricultural lands.

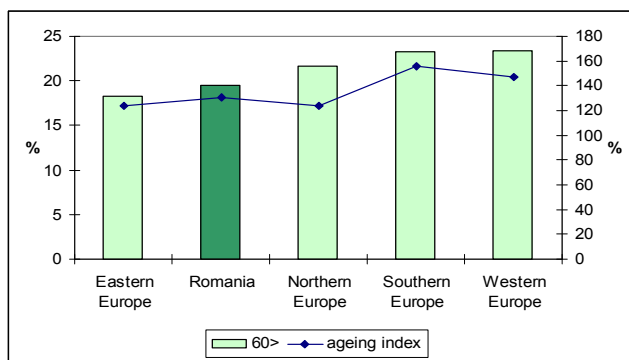


Figure 2. Population ageing in Europe (2007)

The rural area has 9.7 million inhabitants (44.8% of the country's population), of which 2.4 million are aged 60 and over, holds 47% of the housing fund and 46% of the built-up perimeter. The 2,854 communes, each with a population of 3,800, include 12,951 villages, every village having about 780 inhabitants.

The rural habitat

The Romanian territory has always offered favourable natural conditions for settlement, being inhabited from the Carpathians to the Danube and the Black Sea. Maintaining the good quality of land has always been a priority for the population.

The first traces of habitation in the Carpathians date back to the Palaeolithic Age. Evidence has been found indicating the existence of a civilisation of the Neolithic culture and much later of the Daco-Roman and of the Romanian population.

From the earliest times, over two millennia ago, mountains, hills, tablelands and plains have been permanently populated, people using to carry their goods along the Carpathian valleys to the Danube and the Black Sea, while settlers in the lowlands would travel to the mountains and to the Transylvanian Depression. So, intense circulation was going on throughout the Romanian space.

A basic characteristic of the habitat is a majority rural-type settlement, *the village* being a landmark of the Romanian territory.

The physical-geographical and historical-social conditions have shaped distinct forms of settlement in the three major relief steps as follows (Nancu, 2006):

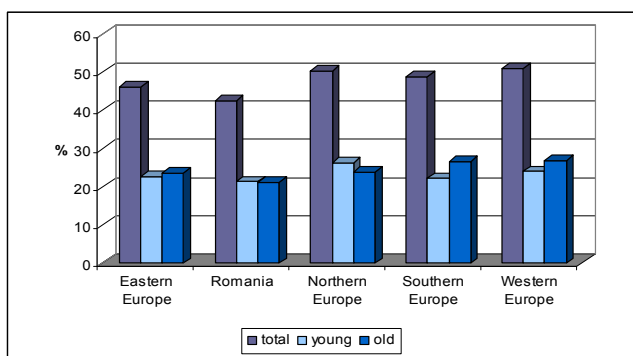


Figure 3. Dependency ratio in Europe (2007)

- *the habitat of plains and plateaus;*
- *the habitat of hills and tablelands;*
- *the habitat of intra-montane depressions and of contact depressions;*
- *the habitat of rural mountain regions.*

The major traditional occupation of any mountain villager is animal husbandry (shepherding), associated with the cultivation of patches of land (on terraces). According to archaeological discoveries, the practice of agriculture goes back to the Dacian times.

The presence of settlements in the Carpathians has materialized in the centuries-old practice of wood processing, creating the so-called civilization of the wood, with traditional economic implications, and the extraction and processing of ores (metal and non-metal).

Although the Carpathian rural-type settlements have characteristic features, nevertheless they are comparable with those of other mountainous regions in Europe.

The rural population

The number of villagers over the past few decades has been steadily decreasing, from 12.2 million in 1977 to 9.6 million in 2007.

The decline began and was concordant with the pre-1989 industrialisation drive which led to an ample village-to-town migration. This type of migration would diminish in the years following the 1989 revolution and the downfall of the communist regime, in time being replaced by external migration which got momentum after 2000 among young people and the unemployed aged 40 years, on average (Table 1).

Table 1. The development of the rural population

Years	1966	1977	1992	2002	2007
Population (thou. persons)	11,8	12,16	10,42	10,24	9,67
Population dynamics (1977 / 100 %)		100	85.6	84.2	79.4
Rural population, % of the total	61.8	56.4	45.7	47.3	44.8
Elderly rural population aged 60 and over (%)	12.2	16.4	22.1	24.3	23.8

Source: National Institute of Statistics, *Census of Population, 1966, 1977, 1992, 2002 and Statistical Yearbooks 1981-2008*.

Rural emigration involved more than 31,000 people (1994-2007) looking for a job in Western Europe (20% in Italy, 17% in Germany, 8 % in Spain and 4% in France), Canada and the U.S.A. (14% in each). Most rural emigrants came from counties situated in the west and centre of Romania (Timiș, Satu Mare, Arad, Sibiu, Mureș and Brașov), people from the eastern and north-eastern counties began moving after 2000 (Iași, Neamț, Suceava and Bacău). Iași alone yielded 15% of the total rural emigration rates from that period.

The regional disparities revealed by two representative indicators, namely, proportion of rural population and population density in the countryside, led to individualising three regions in terms of demographic concentration:

- regions of significant demographic potential per total population of the country (over 45% and more than 46 inhabitants/km²) cover counties from the south and east of Romania. The highest concentration of rural population has Ilfov County (in the surroundings of Bucharest), where 58% of the population is classed as rural, with densities of 112 inhabitants/km²;

- regions of medium demographic potential include the western counties (Arad, Bihor and Satu Mare) with frequent rural population densities above the national average, and the counties from the central part of Romania (Mureș, Harghita and Covasna) with a rural proportion above the average;

- regions of low demographic potential and density, with values below the above average (a minimum of 23% and 19.5 inhabitants/km², respectively in Hunedoara County) encompass some counties from the

south-west and central parts of Romania (Timiș, Brașov and Sibiu with under 40 inhabitants/km² and Arad, Timiș, Sibiu and Alba with less than 35% rural population density).

With the increased migration of young people and the low natality rates, it became more obvious that the village population was ageing. This phenomenon was particularly acute in the 2000s, when a change was noted in the active/inactive population ratio, inactive people being the elderly who also needed more social protection.

While population ageing affects both the rural and the urban environments, the situation in the former is of special concern as three-fifths of Romania's elderly people are villagers. Ageing among women is higher because they live longer than men.

Characteristics of the ageing process

Demographic ageing in Romania is more obvious in the countryside than in town. The process began in the latter half of the 20th century and got momentum after 1992, actually marking a transition from traditional reproduction patterns (high birth and death rates) to modern habits (low birth and moderate death rates).

The main causes of demographic ageing are lengthy depleted natality and greater life expectancy (***, 2006).

At national scale, the ratio of countryside elderly aged 65 and over / overall population was of 24.5% in 2008, which specialists view as a transition to a profound population ageing phase. If this high ageing dynamics is to continue, Romania's rural population will

have over 50% elderly and retired people in less than half a century (fig. 4).

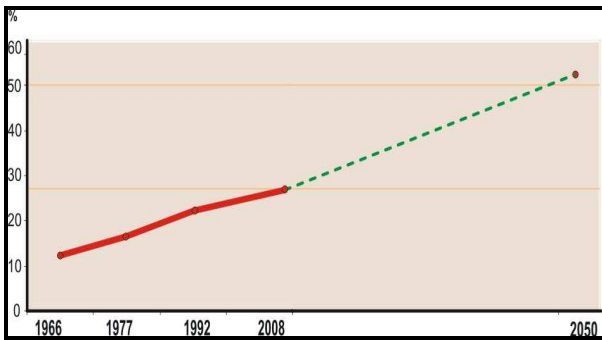


Figure 4. The evolution of elderly population in rural Romania (% in total pop.)

A particularly worrying situation after 1990 and especially after 2000 was the lower fertility level. Traditionally, Romania's countryside had been the main source of our people's vitality, peasant families been by far more numerous than their town counterpart. However, this demographic feature is no longer there. Statistical figures show that a fertile peasant woman has currently less than 1.3 children, while at least 2.1 children / female

would be needed to secure population replacement.

The ever lower fertility index values reduce the length of replacement between from one generation to the next, hence the numerical decrease of the population and its ageing structure.

It follows that the base of the age pyramid (the most suggestive graphic representation) is narrowing down, and its peak is enlarging as births are on the decrease and the average life-span is on the increase. Looking at the age pyramid by age and sex groups in 1966, when the ageing process had just begun and in 2008 this evolution is only too disturbing (fig. 5).

Over the 1990-2008 interval, the country's population kept decreasing by more than one million people, at an annual average rate of 0.15%, unfortunately forecasts are not more encouraging either. In the first two years after 1990, the rural population decrease was the consequence of an upsurge in migration, but in the years that followed it was the outcome of a negative natural increase due to birth rates declining.

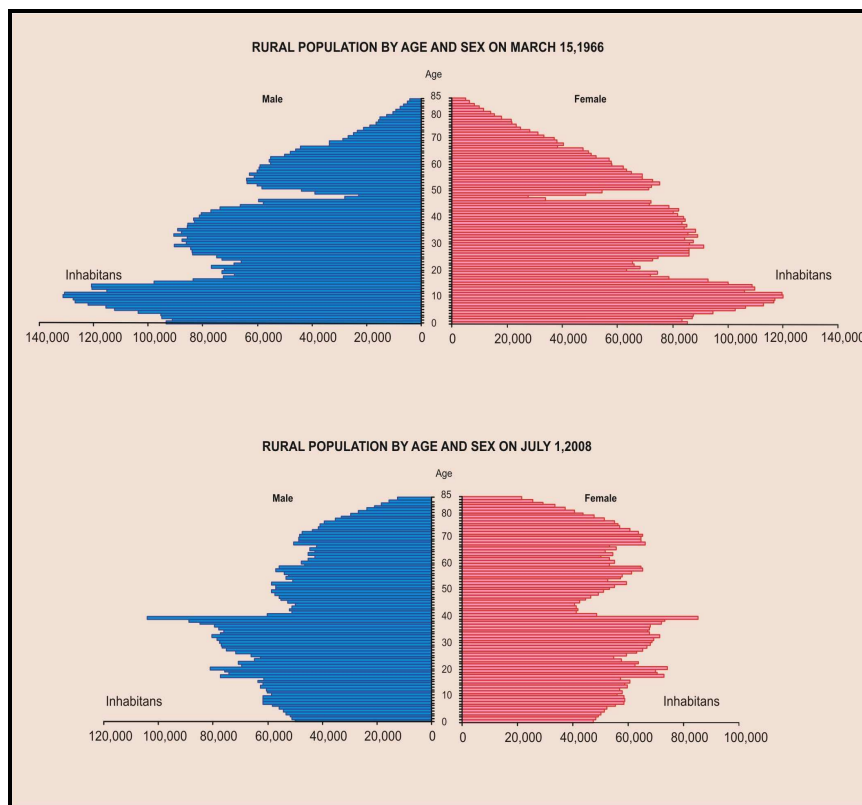


Figure 5. Age-sex pyramid of rural population in Romania (1966; 2008)

Spatial disparities

Analysing demographic ageing, had in view primarily the evolution of rural age-groups, basically the population aged 60 and over per total village population in terms of limit thresholds of young or elderly population structures.

The findings have revealed that counties with the greatest proportion of elderly people were Timiș and Arad (17% and 18%, respectively, due largely to a traditional low-birth demographic pattern. While in 1966 the ageing rate appeared to be quite moderate (1.3%) in 2006 it reached 19%, and 22%, respectively. What is indeed surprising is the swift evolution of some counties towards an ageing structure in 2006 (over 30% elderly people) (Teleorman, Dolj, Mehedinți and Buzău) although in the 1960s they had a pretty balanced record. Such counties as Constanța and Iași, with a high proportion of youth over the study period (32% and 22%, respectively) were slightly tending to develop an ageing pattern, from 9% in 1966 to 16% and 19%, respectively in 2006.

Over 1966-2002, the elderly population / total rural population ratio doubled in 23 counties, by over 150% in five counties, and by 100%-150% in other 14 counties. There are two compact areas in which the proportion of elderly and the ageing rate is quite significant, namely the counties from the south of Romania (7 counties: Teleorman, Dolj, Mehedinți, Olt, Buzău, Ialomița and Călărași) and 5 counties from the east (Botoșani, Vaslui, Neamț, Bacău and Iași) (fig. 6).

Assessing the countryside's demographic potential, severely affected by the ageing process, and involved calculating the demographic ageing index (the ratio of elderly aged 60 and over / youth aged 0-14 years). Higher index values were found for the whole countryside, from 0.5 in 1966 to 1.4 in 2006, basically 0.9% over a 40-year period (fig. 7).

In the 1960s, the rural ageing indicator at country and county level was largely below unity, indicating a more numerous younger population. In the majority of counties (33 out of a total of 40) the average ageing index value at country level was 0.5%. Counties from Moldavia ((Botoșani, Bacău, Iași, Neamț and

Vaslui) and from Dobrogea (Tulcea and Constanța), known for their pro-natality policy, had the best record (0.3%). At the other end of the spectrum stood Banat – south-west of Romania (Arad 1.0, Timiș 0.9, and Caraș-Severin 0.7), an area with a significant proportion of German ethnics at the time, who favoured the one-child family pattern.

Following the ever higher index value in each county from one census to the other indicates that the elderly outnumber the young, while its territorial distribution suggests that the pace of demographic ageing is fast-going throughout the country.

While in 1977, that is the first part of the analysed period, only two counties (Arad and Hunedoara) registered ageing index values above unity, in 1992 their number had risen (most of these counties being located in the south and east of Romania, with Teleorman, Dolj, Botoșani and Neamț heading the table, to 30 in 2002 and to 34 in 2006, the phenomenon dominating the rural area.

Throughout the 1966-2006 interval, ageing index values were positive, reflecting accelerated demographic ageing in all of Romania's counties, the best record had the already aged Banat counties of Timiș 30% and Arad 40%, respectively. At the other extremity stood Hunedoara and Cluj (in Transylvania) and Ialomița, Teleorman and Călărași (in Muntenia) with over 300% though in the past the elderly had represent only 12% of their rural population. Sharp decreases, of 100%-300%, were registered in the majority of counties, but especially in the eastern and southern ones.

In each settlement there is an obvious correlation between demographic ageing and related phenomena, e.g. the growing medium-age population group, the decreasing school-age group, the diminution of the fertile population and of the working segment, with impact on the community's socio-economic life and future.

Population ageing is the result of depleted natural increase and fertility, a situation affecting primarily the countryside, wherefrom young villagers choose to move to town.

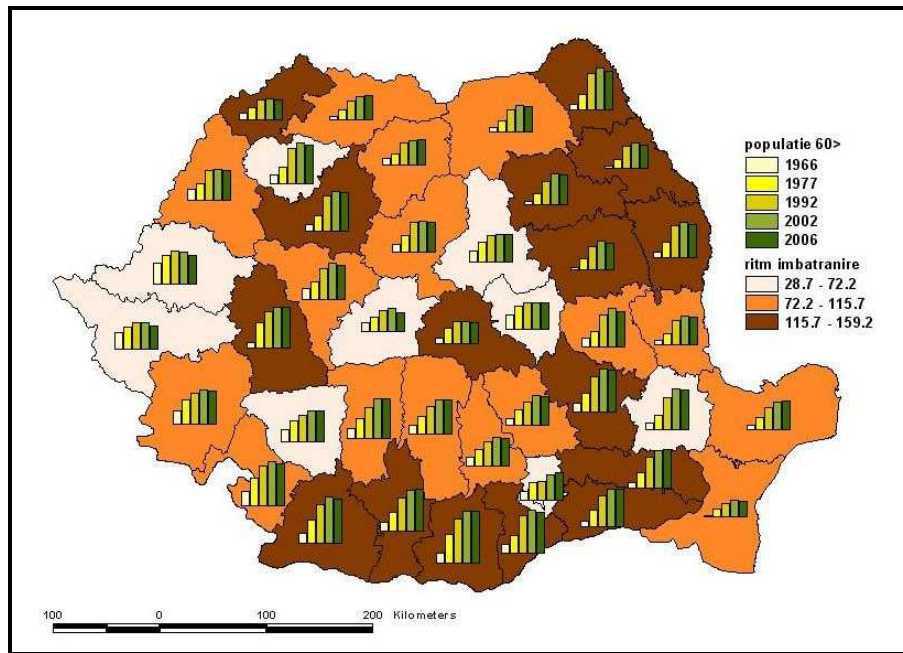


Figure 6. Elderly population share and the rate of ageing in Romania

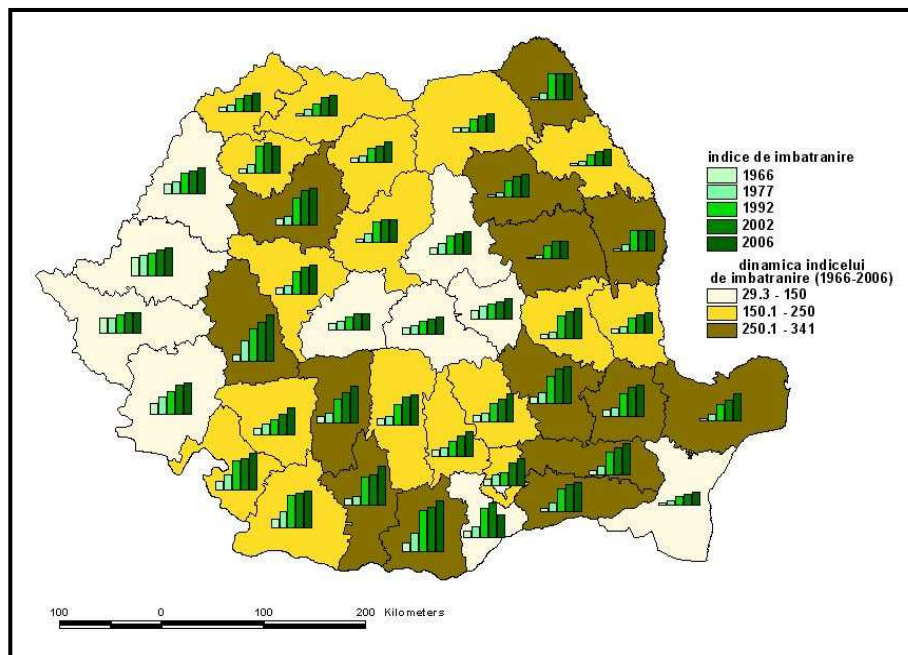


Figure 7. Spatial distribution and evolution of the ageing index

In 2002, the proportion of 60-years-olds and over was 18.3%, with 40% in 121 communes (4.5 of the total) of the counties of Giurgiu, Teleorman, Dolj, Olt, Mehedinți, Vâlcea, Buzău, Vrancea and Cluj. In eight communes half of the population and even more, was formed of elderly people: Mărgăritești (Buzău), Răzmirești (Teleorman), Padina (Mehedinți), Seaca de Pădure (Dolj),

Călmățuiu (Teleorman), Ohaba (Alba), Pardoși (Buzău) and Gogoșu (Dolj).

The best record had the following communes: Contești (Dâmbovița), Tupliceni (Buzău), Ostra (Suceava), Tomești (Iași), Gherța Mică (Satu Mare), Turț (Satu Mare), Holboca (Iași) and Tortomanu (Constanța) (fig. 8).

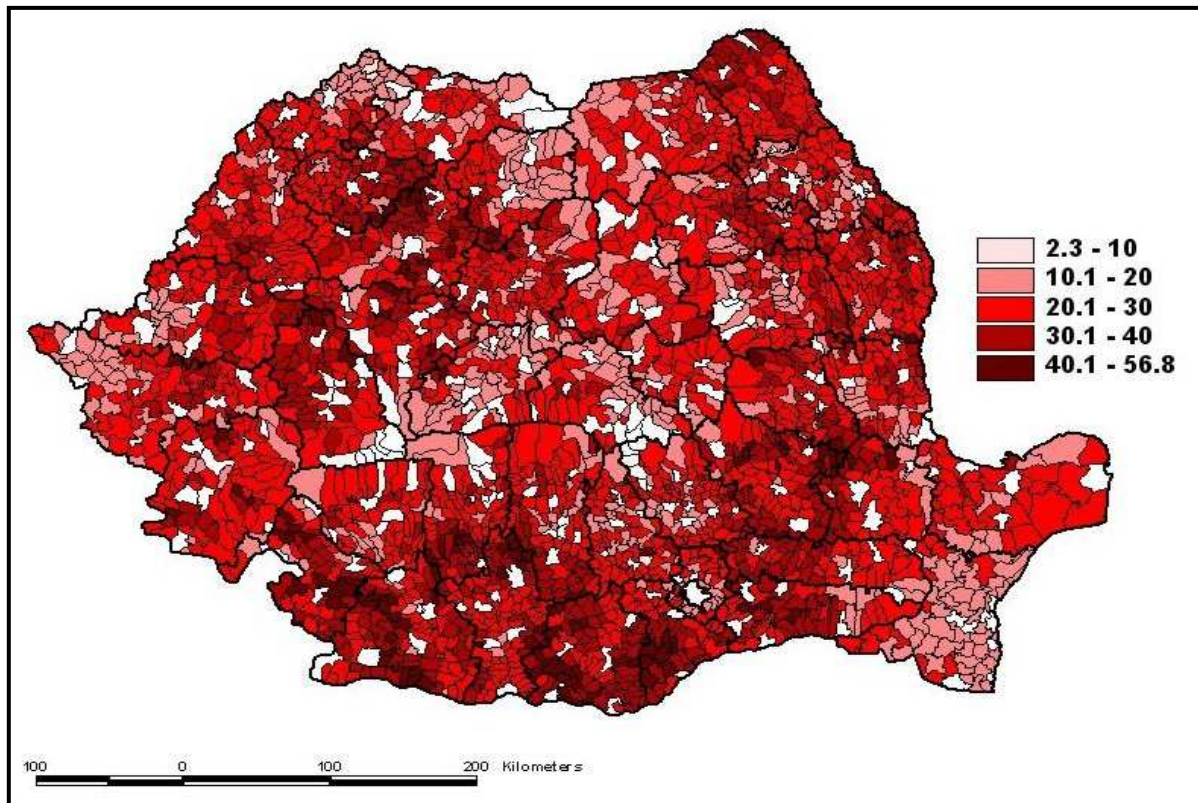


Figure 8. Share of elderly population per commune (2002)

The current evolution of the age-group structure of Romania's population, with fewer young people and more elderly, has a serious economic and social impact. The dependency ratio having changed in favour of the latter group means that the working population carries a heavier economic burden, and besides, the number of elderly increasing implies greater pressure put on social protection and social security.

The socio-economic impact of the ageing demographic process in Romania

As mentioned before, most influenced by the population ageing are the national pension system and the health insurance one.

In the case of **the national pension system**, regarding the two types, *fully funded pensions* and *pay-as-you-go* (PAYG), the second is the most affected by the process. Being an old system, introduced for the first time in Germany by Chancellor Bismarck in

the 80's of the XIXth century, it is used until today by most European countries (Rotariu, 2006). Its essential feature is the permanent supplying with mandatory contributions from the active population, the resulting funds sustaining the pensions. In this context, the main danger comes from the *changes of the dependency ratio*. With demographic aging, its values increase, leading to a higher financial pressure on the active population (income reduction), or decreasing the pensions and the level of the living standard of the elderly. To avoid such problems, numerous states resort to the other system (fully funded pensions), it's "capital being made up in several years to finance the expenses of the generation that contributed to its constitution". Thus, the quantum of each individual's pension is proportional to the sum invested personally (Rotariu, 2006, p.83-84). In this case, the system is controlled by private funds, raising the risk of unsure investments.

In Romania, only one pension system functioned for a long time, the PAYG. In 1990, the situation was relatively good, the dependency rate being situated at that time

around the value of 3.42. In the following years, however, the rapid growth of inflation and the accelerating process of aging, caused by strong reduction in the fertility rate and the massive emigration of the labour force to higher developed European countries, lead to the drop of the dependency rate under one unit. The calculations performed lead to the conclusion that, due to the rising number of the retired individuals from 3.5 millions in 1990 to 9.2 millions in present, an employee must pay the pension to 1.15 people (***, 2009).

Under these circumstances, reforming the system is a strong necessity. The first step towards this goal was made in 2001, when Law 19/2000 (the pillar of a new system) was applied, founding the National House of Pensions and Other Social Insurance Rights. In the following years, other laws were adopted offering the system new funds built up by mandatory contributions and optional funds, both controlled privately. It was also planned that the retirement age to be gradually increased until 2014 (65 for men and 60 for women) as well as to modify the calculation method for basic pensions, taking into consideration this time the contributions from the entire active employment period (Chirițoiu, 2002).

Nevertheless, specialists are still disappointed regarding the results of the social reform, considering that the

“demographic trend will continue to be unfavourable to the pension system, because of the fall in number of the employed people caused by Romania's ‘aging population” (Chirițoiu, 2002).

The rural space suffers even more from this point of view. Numerous retired villagers that had worked in the former Agricultural Production Cooperatives (CAP) receive now a monthly pension of 44 to 75 lei (the equivalent of 10-20 euro). Most affected are women. A recently published study within the United Nations' Program for Development referring to the status of women from rural areas shows that 29% of them have CAP pensions compared to only 5.8% men. The income is complemented by state pensions, salaries,

unemployment allowances and other activity resources. So, it is no wonder that in the counties where the oldest rural communities are most concentrated there are the highest values of the poverty index (Botoșani – 19, Teleorman, Giurgiu, Călărași – 16, Olt, Mehedinți, Dolj – 14, Sălaj, Bistrița Năsăud – 11)¹ (Florian et al., 2000).

Similarly, pressure rises over the *Health Assurance System*. The fall in the share of active population leads to the funding reduction while the growth in the number of retired population determines an increase in expenses. Because of this, it was subjected to the reform in the last two decades.

During the 1990-1998 period, a dual system type of financing (state / complementary) was used (special fund for health – O.G. nr. 22/1992), as well as external financing – loans from World Bank (Law nr. 79/1991), Phare funds and donations. Later (1999), by reorganisation, the Bismarck model started being used, with obligatory health insurance, based on the solidarity principle and working in the case of a decentralised system. Other laws and emergency ordinances completed the legal basis of the new system, wished to be a European one (CNAS, 2006).

Nevertheless, the communist difficult legacy and the negative evolution of the Romanian economy in the last decade of the last century had a strong influence on the nowadays health system.

The health services for the population in the 1990s have significantly worsened due to personnel cuts. Comparatively with the developed countries of Europe and the EU candidates, Romania has by far fewer doctors, dentists, pharmacists and nurses: 48,199 physicians in 2007 of which 11,651 dentists, 11,108 pharmacists and 136,353 nurses.

Although Romania's population is more numerous than that of many other states, yet the sums deducted from the GDP and earmarked to the health sector represent less than half those allotted by other European countries. Besides, many sanitary units are in a state of physical degradation and insufficiently equipped with medical apparatus.

¹ Approximated values.

In the rural area the picture is even bleaker. In many parts of the country qualified medical assistance is hardly available, or there are no doctors at all. It is the case of counties in the North-East Region, the South-East Region and the South-Muntenia Region, where the death toll is very high (Guran, Mocanu, Damian, 2006).

Conclusions

The age - structure of Romania's population has been experiencing radical changes over a relatively short period of time (approx. 30 years), in that, by the beginning of the Third Millennium, the young-to-elderly ratio was shifting towards the former category. Most villages, particularly those from the south and east of the country, have been facing population ageing. From a socio-economic viewpoint, Romania has to cope with the numerical increase of retired people, a broader segment of poverty-stricken population and greater pressure on the health and social protection systems. In view of the above, implementing a medium-and-long-term development programme to address also ageing problems is an imperative necessity.

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