

Demographic and social degradation in the Lubelskie Voivodeship as a peripheral area of East Poland

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Abstract. Eastern regions of Poland are regarded as areas where numerous unfavourable socio-economic phenomena appear and accumulate. These are the results of historical conditions as well as post-war border localization and various processes, primarily in terms of economy. The consequences of the political transformation of the state in the 1990s and profound social and economic changes in recent decades are also crucial drivers of many disadvantageous changes in the region. The article shows population processes which can be recognized nowadays in Eastern Poland, and the attention of the authors is focused on the peripheral rural areas of the region. General tendencies reported in the text are based on the cases from the Lubelskie Voivodeship where concentration of the demographic and social problems is particularly noticeable. The analyses comprise changes of population growth and its components (natural movement and migration), population structures as well as some characteristics concerning the quality and conditions of inhabitants' lives. The main causes of negative processes shaping the population, including domestic, regional and micro-regional factors, are also presented. The final part of the article deals with the most important outcomes of population changes which are reflected in the progressing ageing of society, the decline of villages and social infrastructure, among other facts. These unfavourable phenomena are shown in the context of the future development of the region.

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1. Introduction

The region of East Poland is perceived as an area where many negative socio-economic phenomena occur and accumulate. They result from a number of historical conditions, particularly including the region's post-war near-border location, as well as certain economic factors. The political transformations of the 1990s affecting the social and economic sphere also became of key importance for the occurrence of modern negative changes in the region.

The negative image of East Poland is reflected primarily in numerous population-related issues. These include: a decrease in population size, unfavourable spatial distribution of population, a decrease in natural population growth, increased population outflow, disturbed gender and age structure, a relatively high level of unemployment, poor conditions and quality of life, etc. The majority of the aforementioned phenomena and processes have already been identified and described. Some of them, however, such as, e.g., the conditions and quality of life, still require thorough investigation.

The primary objective of the paper is to present the current state of human resources and certain demographic problems in one of the voivodeships of east Poland, namely the Lubelskie Voivodeship (NUTS 2). The intention of the authors is to emphasise various unfavourable demographic and social processes and phenomena in the voivodeship. They can be treated as symptoms of degradation, as mentioned in the title. On the other hand, those factors largely determine the general condition and level of

development of the entire region. In the Lubelskie Voivodeship, due to its location and socio-economic situation qualifying it as a peripheral and problematic region, a particularly high accumulation of such negative features is observed.

In its introductory part, the paper explains the reasons why the Lubelskie Voivodeship is perceived as peripheral and problematic at the scale of the entire country, or even Europe. Next, it presents factors which have determined the modern demographic and social condition of the voivodeship. The article presents several most important manifestations of the analysed degradation, including: depopulation and very low population growth, disturbed and unfavourable gender and age structure of certain areas. The effects of the existing negative phenomena are also discussed, such as: disappearance of villages, liquidation of primary schools, or low social activity of the region's inhabitants.

2. Research materials and methods

The article has a cognitive-analytical character. The research covered rural areas located in the near-border part of Poland—in the Lubelskie Voivodeship. The basic research material in the paper are statistical data from the following sources:

- Local Data Bank of the Central Statistical Office (LDB), available on its website (www.stat.gov.pl);

- published statistical yearbooks, bulletins, and other statistical studies, both sectoral and provincial.

In addition to statistical data, an important source of information involved knowledge obtained from literature on the subject, as well as information collected within the research conducted during the implementation of the project of the National Science Centre (NCN) entitled: “Modern socio-economic transformations and population potential of East Poland”. As for the survey, it was performed in three Voivodeships of East Poland: the Lubelskie, Podlaskie and Podkarpackie Voivodeships and in the eastern part of the Mazowieckie Voivodeship, from September 2011 until January 2012. The survey was carried out among 1103 inhabitants who were selected on a random basis. The examined areas were divided into four categories: cities—capitals of Voivodeships, towns—capitals of counties, other towns, villages. The survey questionnaire consisted of three parts concerning: 1) general information about the respondents, 2) respondents’ opinions on their health as well as quality and conditions of their life, 3) respondents’ opinions on the availability of medical care. Information on conditions of life was predominantly used for the purpose of this paper. The above sources were supplemented with authors’ own research and field observations conducted in different villages of the Lubelskie Voivodeship.

Due to the character of the study, the basic method applied is the analysis and interpretation of statistical data, arranged in the form of so-called dynamic temporal or territorial sequences referring both to the Lubelskie Voivodeship and to entire Poland. In addition to statistical methods, the study also employed cartographic and graphic methods. Maps, particularly cartograms, and diagrams provided the basis for the analyses performed but also served as an illustration of the discussed issues. Moreover, in order to obtain detailed documentation material for the purposes of the said project, social studies were conducted in the voivodeship in the form of surveys, as well as field research, involving case studies.

3. Theoretical background of the paper

3.1 Peripherality as a socio-economic phenomenon

The spatial unevenness of socio-economic development processes, commonly occurring around the globe, results in the appearance of two types of areas: central and peripheral. The “centre” and “peripheries” are opposite categories. Peripherality is defined as the state of delay in comparison to better-developed regions, as something different from them, and deviating in minus. The term “peripheries” was popularised in the literature in the 1960s, together with the appearance of the theory of polarised development by J. Friedmann (1967). According to the author, economic growth is not uniform in space. Certain places, so-called cores or central areas that have the required resources, are predisposed for economic growth. Peripheries surrounding the centre show weaker development based on traditional activities, i.e. agriculture and mining, as well as less technologically advanced processing industry. The term “peripheries” currently has a broad context and considers different features of space. Therefore, it is a subject of economic, social, geographic studies, among others.

Each area can be examined through a number of aspects. In the traditional approach, economic and spatial factors are usually emphasised, and among them: geographical location (e.g., peripheries identified with a near-border region—*outermost regions*), considerable distance from central agglomerations, poor transport accessibility, and low economic activity (Olechnicka, 2004; Miszczuk, 2013; Novotny et al., 2015). In the demographic-social aspect, peripherality is manifested in a decrease in population size, low population density, poor social conditions, and low level of innovativeness in the entrepreneurs of the inhabitants (Copus, 2001; Kahila et al., 2006; Grosse, 2007).

The economic aspect of peripherality is the most problematic. Based on the theory of three sectors by A.G. Fisher (1939), growth is reflected in the employment structure in particular economic sectors. The higher the contribution of people employed in sector I (agriculture, forestry, and fisheries), the

higher the backwardness, and therefore the higher the degree of economic peripherality. Economic motives are the main reasons for depopulation of peripheral areas, i.e. the “backwashing” of human capital, translating into the socio-economic aspect of peripherality.

Many theories on peripherality tackling regional development have been developed. Exogenic theories of development were the first to appear in the literature. They originated from theories of economic growth, and among them the concept of space polarisation (Perroux, 1955, 1964; Myrdal, 1957; Hirschman, 1958), explaining the shaping of regions with different growth dynamics. Spatial variability of development is a result of the long-term influence of various conditions, whereas variability between areas is growing. Growth poles develop faster and faster, and poorly-developed areas are subject to stagnation. The vicious circle effect appears. In the “vicious circle” concept, G. Myrdal (1957) assumed that a change of one component in the socio-economic system causes and influences changes in other components. The author described negative changes as the backwash effect. The term covered all negative changes: in commerce, migration, or capital flow that have an inward effect, cause recession processes in less developed regions, and increase their distance from growth poles. According to the concept, peripheral areas are not able to initiate their own development with no help from the outside.

In theories of location by A. Weber and E. M. Hoover, peripheral areas are regions that are unattractive in terms of investment and do not develop, because they do not provide minimisation of production and transport costs. Similar opinions appeared in theories by J. Friedmann (1967) and P. Krugman (1991). Development is initiated from the outside but benefitting from it depends on the entrepreneurship of residents which is closely related to the history of development of the region. In the core-periphery model, enterprises locate their activity in places characterised by access to labour resources, low transport costs, and high demand. Although peripheries offer cheaper labour, the scale benefits predominate, and peripheral areas receive no development impulses.

The currently implemented polarisation-diffusion development model emphasises external sourc-

es of development in peripheral regions, and their development potential is associated with four capitals: human, social, economic, and natural (Ekins et al., 2008). Among other areas, studies on peripherality consider the development of countries and regions, interregional differences, and location of business activities. The potential of regions considered peripheral is an important study issue. Some researchers focus on the use of such regions' endogenous potential, some focus on external conditions of development, provided primarily by information and communication technologies, and others on the political-administrative conditions of peripherality (Davies, Michie, 2012). The effects of peripherality are a particularly important aspect of studies of the phenomenon. Such effects are observed in the modern geographic space and can be predicted in the perspective of the upcoming years. Due to the fact that they determine the current functioning of areas and can determine future development, they have an unquestionable impact on regional policies.

3.2. Peripherality of areas of East Poland

Assuming that peripherality is related to low development and weak capital, and based on indices concerning different aspects of peripherality, S. Davies and R. Michie (2012) divided European countries into four groups. One of them, particularly characterised by geographic and socio-economic peripherality, included countries of Central Europe: Romania, Latvia, Hungary, and Poland, among others. Moreover, the study designated areas within Poland with a high degree of peripherality, substantially deviating from the remaining parts of the country. According to the EU classification, peripheral areas cover five Voivodeships of East Poland: Lubelskie, Podkarpackie, Podlaskie, Świętokrzyskie, and Warmińsko-Mazurskie. The peripherality of these regions is evident in various aspects related to several criteria of its determination. Moreover, it is observed irrespective of the territorial scale of comparison (Halas, 2014).

Regions of East Poland are listed among the poorest regions in the European Union, where the gross national product per capita measured by purchasing power does not exceed 40% of the mean

value for the EU. The peripherality of the areas is determined by their considerable distance to and lack of stronger connections with the development centres of not only Europe, but also Poland, location outside the main transport routes, and location at the external border of the EU (Miszczuk, 2010). The index of potential transport accessibility calculated for regions of the European Union classifies five of the aforementioned Voivodeships to the group of peripheral and ultraperipheral regions, i.e. those in which the above index is lower than 60% and 40% of the mean value of the European Union, respectively (Kozłak, 2007). Due to the occurring processes of marginalisation and accumulation of negative socio-economic phenomena, areas of East Poland require special intervention. This was recognised in the EU, where cohesion policy is implemented, particularly considering peripheral regions, including near-border areas located along the external borders of the EU.

The weakness of the eastern Voivodeships also partly results from their demographic situation and low quality of human capital. Considering that in the future the development of peripheral regions will be largely based on local development dependent on indigenous factors, including local human resources, it is worth emphasising the consequences of long-term depopulation of certain areas of East Poland and the related quantitative and qualitative degradation of human capital. Overcoming long-term underdevelopment of peripheral regions in that scope will be possible through, among other things, the development of modern education and countering or reversing migration trends draining the resources of the best-educated and entrepreneurial young people (Domański, 2008).

4. Research results

4.1. Conditions of population degradation in the Lublin region

Due to socio-economic marginalisation, scientific papers regard the Lubelskie Voivodeship as a peripheral area. It is also frequently described as a problematic region (Szlachta, 1984; Eberhardt, 1989;

Jedut, 1990; Miszczuk, 1993; Bański, 1999). Moreover, strategic documents, such as *Zaktualizowana koncepcja przestrzennego zagospodarowania kraju* (Updated Concept of Spatial Management of the Country, 2005: 116), classify the Voivodeship as a European problematic region, i.e. one “*whose development is permanently and strongly structurally disturbed by social and economic factors to the degree in which the regions are not able to overcome such disturbances without external assistance.*”

The Lublin region has always been distinguished by specific demographic and social processes standing out among other Polish Voivodeships. This was determined by a group of factors related to the location and socio-economic status of the area, partly of historical origin, and resulting to a certain degree from the country's policy in the post-war period. The region's location, peripheral in comparison to better-developed regions and main urban centres of the country, did not favour economic investments in the voivodeship. The area was usually omitted or scarcely considered by authorities in national development plans. Economic growth was hampered by the location at the impermeable eastern Polish border. In the Communist period, it was a part of the border with the Soviet Union, effectively preventing any cross-border cooperation which could be an impulse for an economic revival of the area. Such cooperation was not facilitated by the accession of Poland to the European Union (2004), and then the Schengen Zone (2007). The Lubelskie Voivodeship was now located at the external border of the European Union, involving a number of barriers in crossing it.

The profile of the voivodeship's economy, particularly based on traditional and barely efficient agriculture, low urbanisation, and underinvestment in infrastructure, resulted in the low life level and low settlement attractiveness of the region, particularly for young people. Therefore, the post-war development of the population was low in the area, and already in the 1950s intensified emigration from the area commenced, lasting throughout the Communist period. In particular, young inhabitants of rural areas emigrated to nearby cities and cities in other parts of Poland, and the Lublin region became one of the main depopulation areas in the country (Eberhardt, 1989; Wesołowska, 2013).

The demographic situation of the voivodeship did not improve under new economic conditions. Moreover, with time, due to the deterioration of the economic situation, the majority of unfavourable population-related phenomena were strengthened. The transition to market economy in the 1990s modified migration processes and intensified current population transformations in the scope of natural movement. Whereas until the 1990s decreases in population size were particularly determined by migrations, from that moment on decreasing natural population growth became an additional factor of population regress. As a result, areas experiencing a decrease in population size grew, systematically developing increasingly extensive depopulation areas. The restructuring of the economy and unemployment in cities caused a decrease in the inflow of population from rural areas. Nonetheless, large urban centres remained the destination of migrations. Moreover, internal migrations showed a direction from cities to the adjacent rural areas, resulting from the suburbanisation process.

In terms of natural movements, in the 1990s negative tendencies occurred in the scope of certain indicators. In the area of the Lubelskie Voivodeship, such changes corresponded with country-scale tendencies and were related to Poland entering the phase of the so-called “second demographic transition”. At first, the theory concerned only the highly developed countries of Northern and Western Europe, but since 1990 it was also related to the states of Central and Eastern Europe (Kotowska, 1999; Rychtaříková, 1999; Pinelli, De Rose, 2001; Pinelli et al., 2001).

The second demographic transition was distinguished by a general decrease in the frequency and shift in the age of concluding marriage, a decrease in the number of children, and the related reduced number of births, as well as a decrease in natural population growth (Surkyn, Lesthaeghe, 2004; Sobotka, 2008; Sobotka, Toulemon, 2008). In Poland, such a situation resulted from, among other things, changes in the mentality of young people who more and more frequently set their professional career and economic stabilisation as a priority, postponing the establishment of a family and having children (Kotowska, 1989, 1999; Mishtal, 2009). This was particularly evident among the inhabitants of cities. A decrease in fertility was also related to the

effects of economic transformations in the country, i.e. high costs of having children with simultaneous low wages, or uncertain economic situation and inability to support the family (Kurkiewicz et al., 2004), particularly visible in the Lublin region. Another important factor determining the birth rate in the region was the population’s age structure—a considerably lower number of births was observed in areas distinguished by a high percentage of old population.

Currently, migrations are still the strongest factor determining the general population situation in the Lublin region. The migration balance of the area is still negative. In 2013, the area lost more than 11 thousand people, and a large part of the population participates in temporary migrations. Foreign emigration is inconsiderable in the Lubelskie Voivodeship. Inhabitants of rural areas particularly participate in internal migrations to other voivodeships (Mazowieckie, Małopolskie) where they move in search of attractive jobs and satisfactory wages, as well as with a willingness to improve their life standard. The migrations are of selective character, involving particularly young, better-educated, more entrepreneurial and innovative people. This results in the impoverishment of the local human resources, both in quantitative and qualitative terms. The highest deficits in population size related to migrations are observed in monofunctional communes dominated by agriculture, and in communes in peripheral areas, particularly those located along the national border. Flows in the direction from city to rural areas show a continued tendency for the movement of inhabitants of large and medium-sized cities to the suburbs within the processes of suburbanisation. In suburban areas, characteristic suburban zones develop with a specific population structure.

A population deficit has been recorded in the Lubelskie Voivodeship for the last 15 years in spite of a slight increase in natural population growth in Poland over the recent years. The strongly fluctuating birth rates do not guarantee simple replaceability of generations. Due to the improvement of living conditions and social security, the average life expectancy of the population increased, leading to a slight improvement (i.e. decrease) in the mortality rates of inhabitants of the voivodeship. Nonetheless, they are maintained at a high level in the region,

belonging to the highest in the entire country. This results, among other factors, from the advanced demographic age of the region.

4.2. Symptoms of demographic degradation

4.2.1. Depopulation of areas

Many years of population outflow, particularly from rural areas, resulted in the development of areas with permanent depopulation.

Communes that depopulated the fastest developed three evident areas which according to the study by P. Eberhardt were identified and described as being among the most demographically depressive regions of East Poland already in the late 1980s (1989) (Fig. 1). Two depopulation regions, referred to as Janowsko-Hrubieszowski and Roztoczański, were formed by communes in the central and south-eastern part of the voivodeship, located between: Janów Lubelski and Krasnystaw, and between Krasnystaw and Hrubieszów. The third re-

gion, called Podlasko-Nadbużański, developed in the north-eastern part of the voivodeship.

The image of population transformations developed in the period of the Polish People's Republic under the influence of contemporary political and economic factors was not substantially modified by the demographic processes of the period of transformation and stabilisation of market economy (cf. Fig. 2). This unquestionably evidences the succession and permanence of negative demographic tendencies in the Lubelskie Voivodeship. The tendencies were retained irrespective of the changing socio-economic conditions.

4.2.2. Uneven spatial distribution of population

Post-war demographic processes contributed to the development of a specific spatial image of population distribution in the Lubelskie Voivodeship. It is worth noticing, however, that to a certain degree, the image had already developed in even earlier periods of the country's history—before the Second World War. Over the recent decades, the distribu-

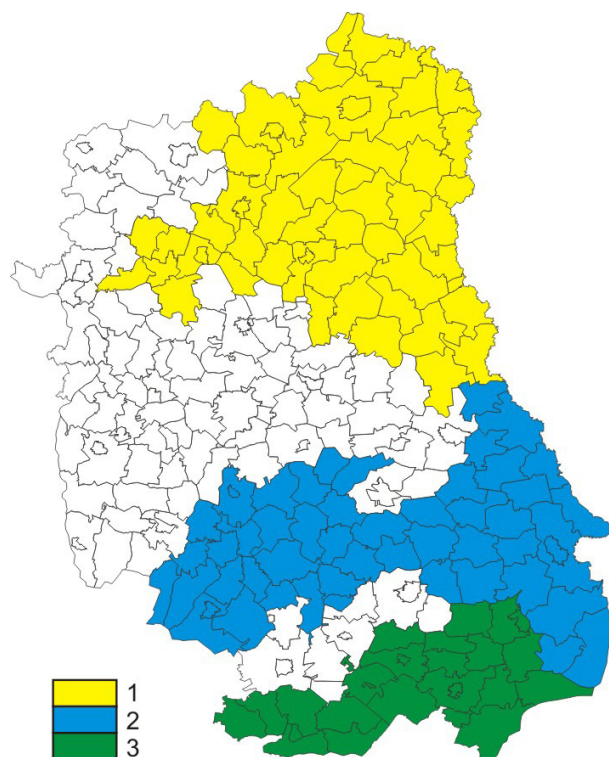


Fig. 1. Regions of the Lubelskie Voivodeship subject to depopulation Explanation: 1-Podlasko-Nadbużański; 2-Janowsko-Hrubieszowski; 3-Roztoczański

Source: Own elaboration based on: Eberhardt P., 1989

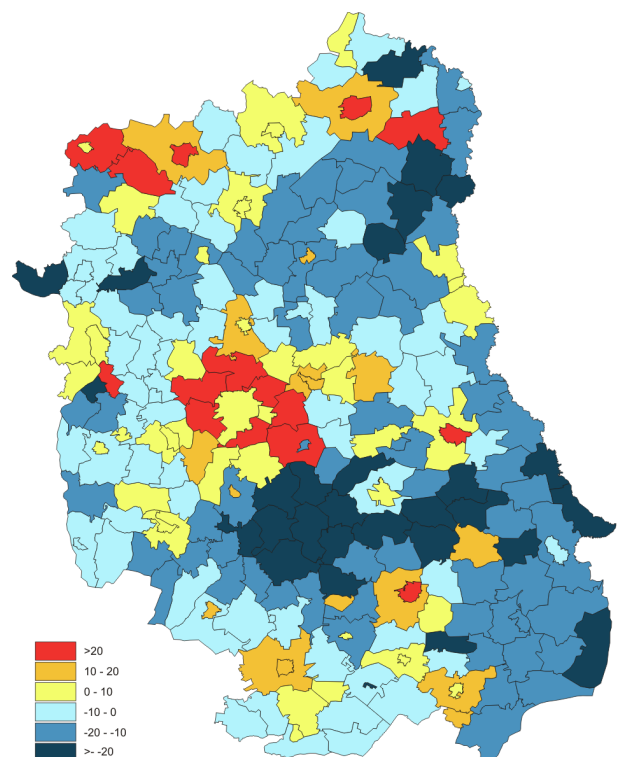


Fig. 2. Changes in population size in communes of the Lubelskie Voivodeship in the years 1988–2014 (%)

Source: Developed by the authors based on data available in the Central Statistical Office of Poland, Local Data Bank

tion has not been subject to considerable changes, but rather to the strengthening of already existing differences in the spatial distribution of population.

Cities remained the natural areas of higher concentration of population. In rural areas, the polarisation of population density intensified, resulting from the processes of suburbanisation and diversification of the economic situation, and therefore the conditions and quality of life of the inhabitants (Fig. 3). Rural areas located around large cities became the most populated, and could boast the highest concentration of economic activity, simultaneously concentrating the highest demographic potential. In areas with location peripheral in relation to urban

centres and distinguished by relatively low level of economic and social development, population density was not only low, but its often considerable decrease was progressing.

The mean population density in the Lubelskie Voivodeship amounts to 85 people/km². It belongs to the group of the least populated regions in the country (mean population density in Poland: 123 people/km²). The western and central part of the voivodeship shows considerably higher population density. The concentration of population around Lublin is evident (more than 100 people/km²), as is in the belt of communes between Lublin and Puławy, and between Lublin and Kraśnik (more than 60

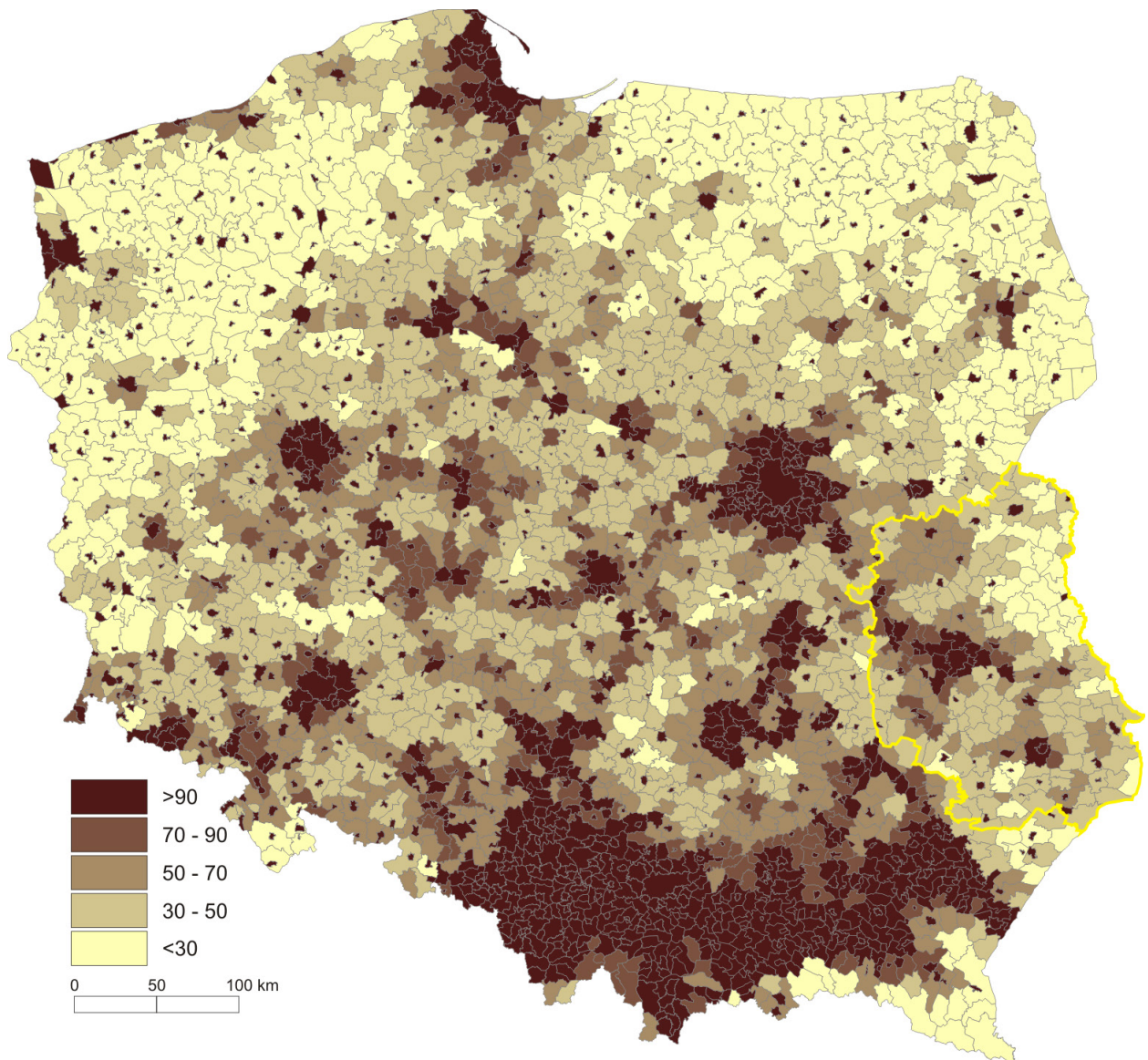


Fig. 3. Population density in 2014 (people/km²)

Source: Developed by the authors based on data available in the Central Statistical Office of Poland, Local Data Bank

people/km²), where intensive agricultural activity is conducted, including fruit cultivation. The concentration of population resulting from intensive settlement in suburban communes also occurs in the case of smaller towns in the voivodeship, e.g., Zamość, Chełm, and Tomaszów Lubelski.

In the north-eastern and southern parts of the Lubelskie Voivodeship, extensive areas exist with low indices of population density in rural areas. In the east of the voivodeship, forest and wetland areas of Polesie Lubelskie are particularly weakly populated. The area with a population density of less than 30 people/km² occupies approximately 55% of the area of Polesie. Particularly low population density, amounting to only approximately a dozen people/km², occurs in communes in the Parczew, Włodawa, and Chełm Counties, located in the centre of the region, and covering its most environmentally valuable parts, mainly the Łęczna-Włodawa Lakeland. The boundaries of the depopulated region of Polesie feature communes with higher population density, above 30 people/km², developing a belt surrounding the region from the north, west, and south.

The contrast between the centre of Polesie, almost empty in terms of population, and its better-populated boundaries is additionally emphasised by towns located on the boundaries. They have developed on the boundary of physiographic regions at former commercial trails, running around the area of Polesie which is largely impassable due to natural conditions. Less populated (several hundred people/km²) towns include those located on the southern boundaries of the region, namely Rejowiec Fabryczny and Krasnystaw. Higher population density of more than 1000 people/km² occurs in former voivodeship capitals: Biała Podlaska and Chełm, and in towns located at the boundary of two completely different physio-geographical regions (Polesie and Lublin Upland): Łęczna and Parczew.

In the south of the Lubelskie Voivodeship, low population density of up to 40 people/km² occurs in certain communes in the Zamość, Biłgoraj, and Tomaszów counties, located within Roztocze. They are largely overgrown with forests and covered with various forms of environmental protection and inhabited and cultivated only to a certain degree. Very low population density also concerns the southern boundaries of the Hrubieszów County and the eastern boundaries of the Tomaszów County, featuring

peripheral location in comparison to larger urban centres, and additionally adjacent to the national border with Ukraine.

4.2.3. Disturbed gender structure

The emigration of population from the voivodeship described above and a decrease in the number of births over the last decades have determined the general age structure of the population of the Lublin region, and have contributed to the disproportions between genders in certain age groups.

In general, women slightly predominate over men, constituting somewhat more than 51% of the population. The feminisation coefficient, averaging 106 women per 100 men, is approximate to the mean value for the country (107). Traditionally, higher prevalence of women over men has occurred in cities constituting destinations of migrations of women searching for jobs than in rural areas (feminisation coefficient: 112 and 102, respectively).

In spite of the general prevalence of women over men, areas exist in the voivodeship in which proportions between genders are almost identical, or even show a prevalence of men. Such a state occurs in areas in which the socio-economic situation caused an outflow of women, and which are generally weakly populated. Such regions include the northern counties of the voivodeship neighbouring with the Mazowieckie Voivodeship, as well as Polesie and Roztocze.

A specific feature of East Poland, including the Lubelskie Voivodeship, is the high feminisation coefficient in the oldest age groups, above 70 years of age (Fig. 4). For the entire voivodeship in these age groups, the average number of women per 100 men amounts to 190, although in certain rural areas the number of women is approximately or more than two times higher than that of men. Such high prevalence of women is most evident in the central and eastern parts of the region. The phenomenon is almost ubiquitous there, and the affected communes include: Rejowiec Fabryczny: 258 women per 100 men, Sławatycze: 242, and Siedliszcze and Leśnio-wice: 241 each (2014).

The cause of such considerable disproportions in the gender structure in the oldest age groups is, among other factors, the substantial difference in the average life expectancy of women and men.

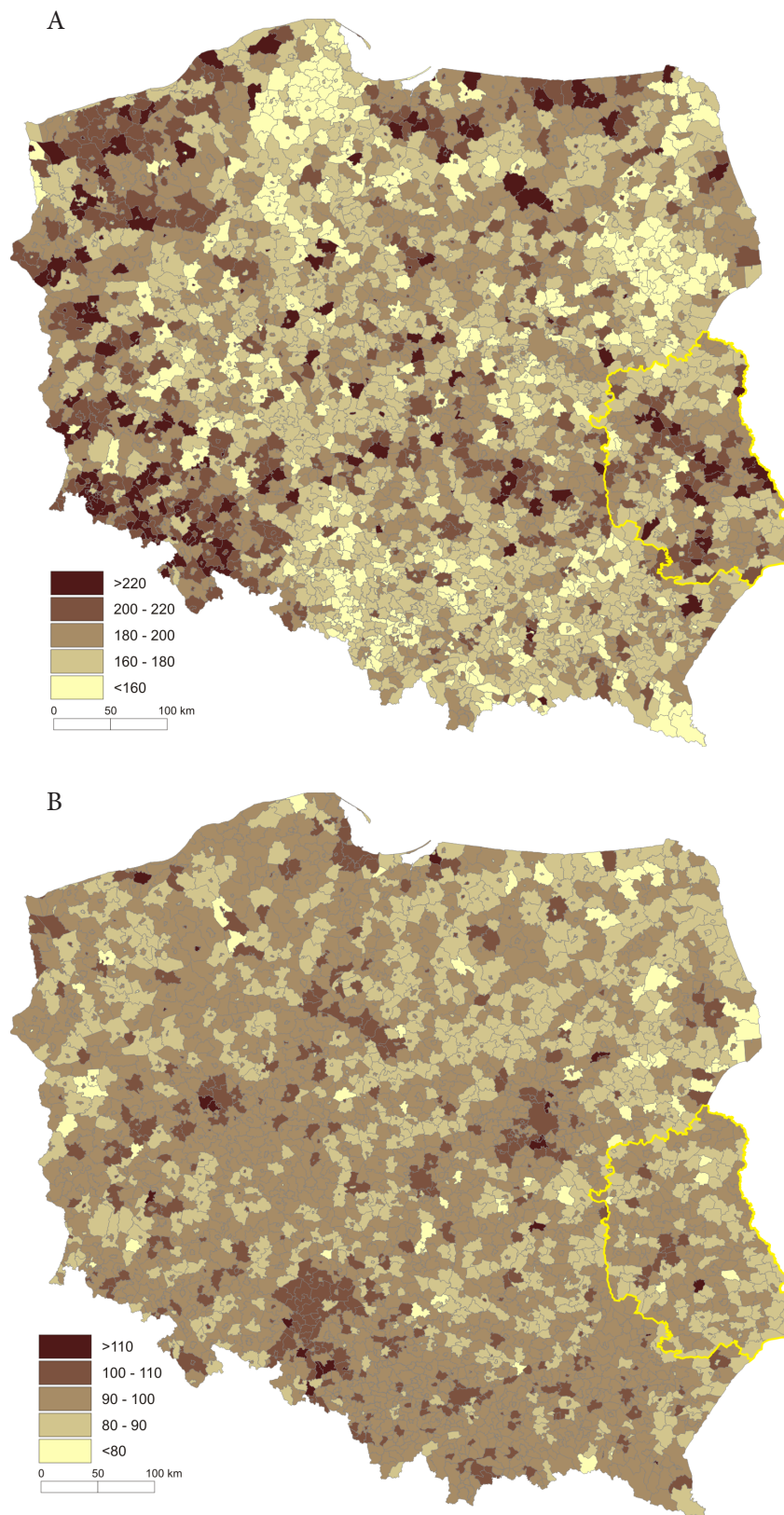


Fig. 4. Number of women per 100 men in 2014. Explanation: A – in age group above 70 years old, B – in age group of 20–34 years old

Source: Developed by the authors based on data available in the Central Statistical Office of Poland, Local Data Bank

According to the Central Statistical Office of Poland, the average life expectancy of men in 2012 amounted to 72.4 years, and of women 81.5 years. The difference reached up to 9 years and increased over recent years due to the commonly progressing phenomenon of high mortality of men in Poland. From the beginning of the 1990s, the mortality of men in age groups of 50–69 years exceeded that of women two- or threefold. It is worth emphasising that in the Lubelskie Voivodeship, the phenomenon of mortality is particularly strong. In the nineties, the mortality rate of men in the cities of the voivodeship exceeded that of women by approximately 87%, and in rural areas, it was more than twice as high (Stępień, 2001).

In the context of the demographic development of the analysed area, the proportions of genders among the population at matrimonial age are of considerable importance. Currently, due to the gradual shift of the age of concluding marriage, this age group should cover the age of 20–34 years. According to D. Celińska-Janowicz et al. (2010), the problem of unfavourable gender structure at matrimonial age concerns the entire East Poland. Although the increase in the feminisation coefficient for this age group is a tendency at the scale of the country, the dynamics of changes is the highest in the east of Poland.

In the Lubelskie Voivodeship, areas with the lowest feminisation coefficient in the age group of 20–34 years (< 80 women per 100 men) occur sporadically. In very numerous rural communes, the coefficient varied from 80 to 90 women per 100 men. These are usually peripheral areas, i.e. located at the national border or on the boundaries of physio-geographic regions. They are usually sparsely populated, of monofunctional character, and dominated by agriculture. A different situation occurs in the largest urban centres, e.g., in Lublin, where

overrepresentation of young women is observed. In cities, the number of women per 100 men in the discussed age group reaches 110.

4.2.4. Unfavourable age structure and ageing of society

As evidenced by the share of people in particular age groups in the total number of inhabitants, the Lubelskie Voivodeship belongs to regions with a stationary demographic structure. Currently, however, the structure is subject to substantial changes caused by the ageing of the area and a transition towards a regressive structure (cf. Table 1).

In 2014, the majority of the population in the Lubelskie Voivodeship was constituted by people in the productive age. Their share in the total number of inhabitants suggests that the general situation of the region did not considerably differ from the Polish average (Table 1). In the cities of the Lubelskie Voivodeship, the share of people at productive age amounted to 63.1% and was approximate to the average for the country (62.8%). A somewhat lower share was represented by people at productive age in the rural areas of the voivodeship—61.9%, with the value for Poland amounting to 63.3%.

People at pre-productive age in the Lubelskie Voivodeship constituted less than 1/5 of the total population number, whereas higher contributions concerned rural areas (19.1%) rather than cities (16.9%). It is worth emphasising that the share of rural population of the Lubelskie Voivodeship was slightly lower than the average for Poland (20.1%), and that of urban population was slightly higher in comparison with the national average (16.7%).

The remaining extensive area showed variable shares of young people in the population structure. Several sub-regions with low shares developed within the area, namely Polesie, the western part of the

Table 1. Population structure by age in Poland and the Lubelskie Voivodeship in 2005 and 2014

	Share of people in different age groups in the total number of population in %					
	Pre-productive age		Productive age		Post-productive age	
	2005	2014	2005	2014	2005	2014
Poland	20.6	18.0	64.0	63.0	15.4	19.0
Lubelskie Voivodeship	21.6	18.1	61.9	62.4	16.5	19.5

Source: Authors' calculations based on data available in the Central Statistical Office of Poland, Local Data Bank

Lublin Upland (Opole, Puławy, and Ryki counties), and particularly the already-mentioned north-central fragment of the Upland (Fig. 5).

The least abundant population group in the Lubelskie Voivodeship was constituted by people at post-productive age. In the region which had been experiencing an outflow of young population throughout the post-war period, and which is regarded as one of the oldest regions in demographic terms in Poland, the share of this group in the total number of inhabitants was higher than the average for the country (19.0%) and amounted to 19.5%. The difference between cities and rural areas of the voivodeship was inconsiderable. The shares of peo-

ple at post-productive age amounted to 20.0% and 19.1%, respectively. Rural areas in the Lublin region largely differed from the rural areas of Poland in the share of people at post-productive age at a level of 19.1% in comparison to the value for the country amounting to approximately 16.6%.

The old demographic age of the rural areas of the Lublin region is adequately presented in Fig. 6. In the majority of them, the share of people at post-productive age exceeds 18%, and in extensive areas even 20%. Changes observed in the scope of the shares of particular age groups in the total population structure of the voivodeship suggest progressing ageing of the local population. The age

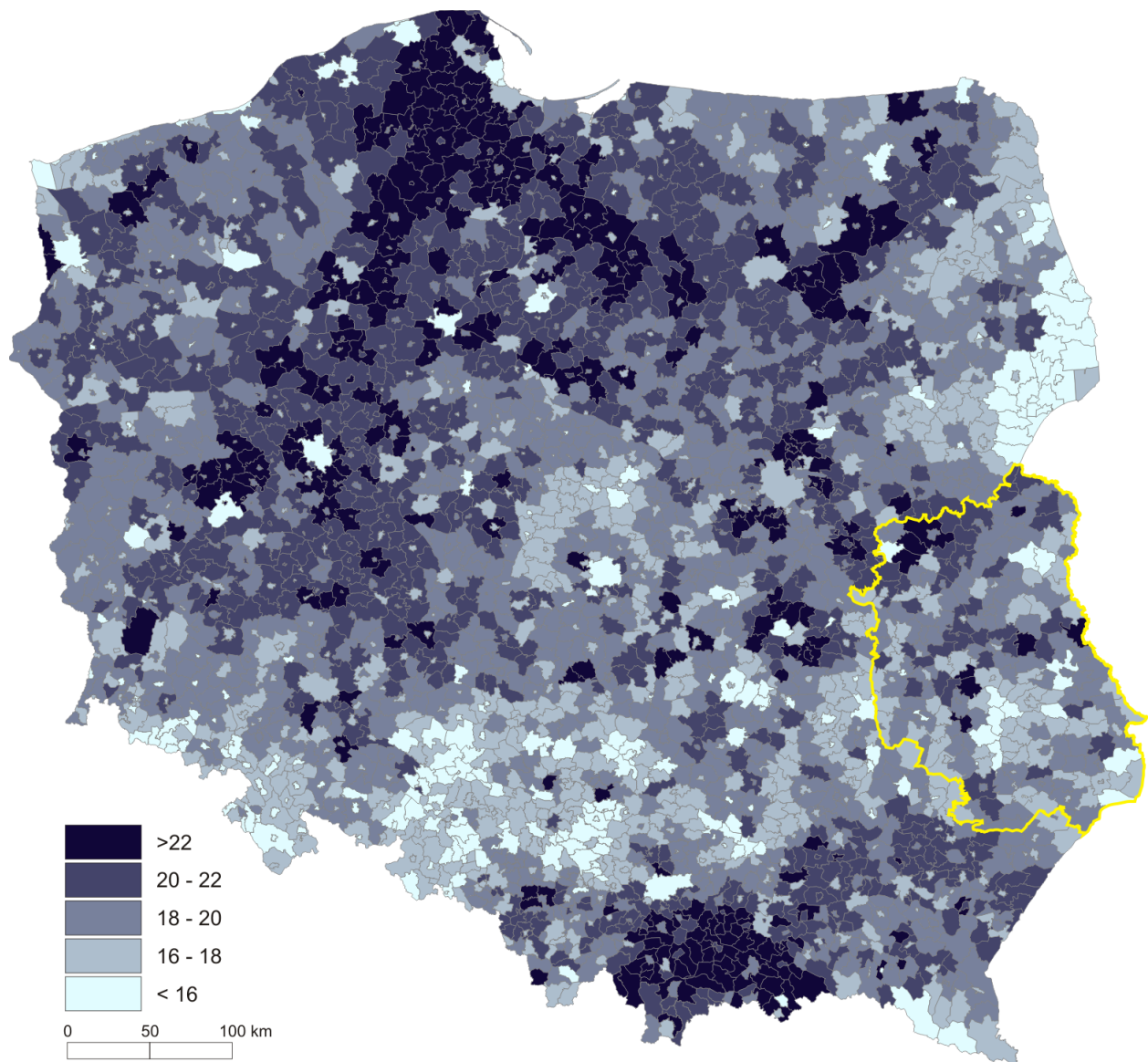


Fig. 5. The share of people at pre-productive age in the total population number in 2014
 Source: Developed by the authors based on data available in the Central Statistical Office of Poland, Local Data Bank

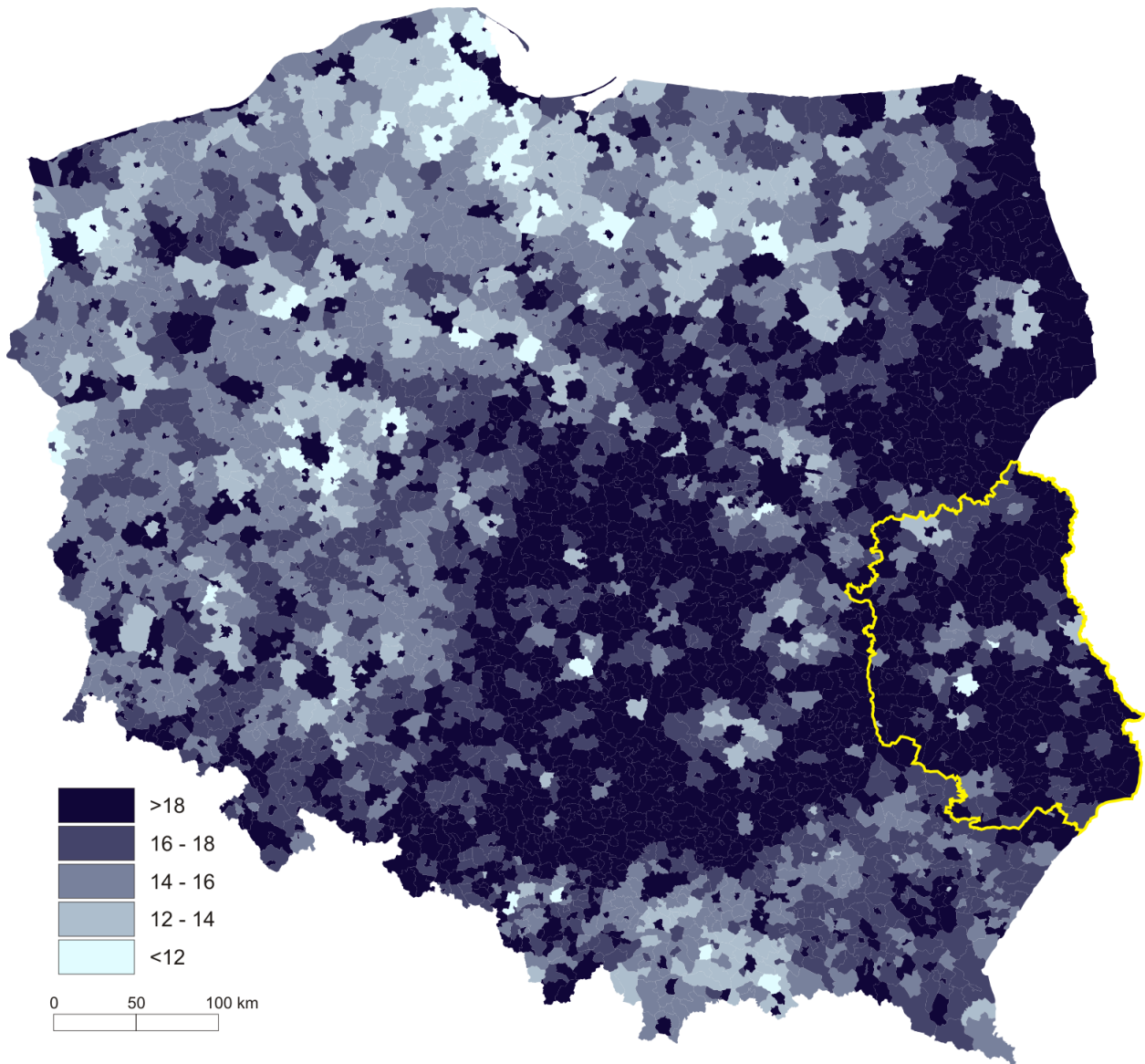


Fig. 6. The share of people at post-production age in the total population number in 2014
 Source: Developed by the authors based on data available in the Central Statistical Office of Poland, Local Data Bank

median has been systematically increasing over the recent years. In the period of 2005–2014, it increased by approximately two years. A high average age of the population occurred in the cities of the Lubelskie Voivodeship—somewhat more than 39 years, and for the rural population it amounted to approximately 38 years. Substantial changes currently occurring in the population's age structure include a decrease in the number of people at pre-productive age (cf. Table 1). It is forecast that their contribution will continue decreasing. General ageing of the voivodeship is also suggested by an increase in the share of people at post-productive

age (Table 1). As can be expected, the share of such people will continue growing in the foreseeable future due to the systematic increase in the average life expectancy of the population of Poland. Moreover, in the perspective of the upcoming years, the group will include people from relatively abundant generations at productive age. Depopulation and an advanced process of ageing of society in the areas can consequently lead to the occurrence of disappearing settlements (Rogers, Willekens, 1986; Glasgow, Brown, 2012).

4.3. Settlement degradation as an effect of depopulation in the Lubelskie Voivodeship

As already mentioned earlier, due to the underdeveloped agriculture and lack of available workplaces in non-agricultural professions, the area of the Lubelskie Voivodeship has been subject to depopulation for many years. Due to the above, rural space, and therefore rural settlement, is adjusting to the phenomenon. Building development is a component considerably responding to depopulation. Depopulation frequently leads to the degradation, impoverishment of the settlement tissue, and sometimes even to the complete disappearance of rural development (Fig. 7 and 8). Since 1950, an actual decrease in the number of households was recorded in more than 40% of villages of the Lubelskie Voivodeship (1,378 villages). The highest number of households disappeared in the villages of the Chełm and Kraśnik Counties (Wesołowska, 2011). The described effects of degradation are a manifestation of demographic shrinking of villages. The term was popularised by G. Weber (2011), conducting research on the depopulation of rural areas in Austria. The causes of shrinking of villages depend on various types of inconveniences, and particularly peripheral location, difficult environmental conditions, and difficulties related to transport or infrastructure. The primary consequences include an increase in the number of vacant buildings or liquidation of social infrastructure (schools, kindergartens, health centres). The final stage of shrinking can

be the complete disappearance of the population and settlement (in the physical sense, the reduction of building development). Examples of completely declined villages (deserted, abandoned, missing) can be found in other regions of Poland, e.g., in the Bieszczady or Sudety Mountains (Latocha, 2011; Wolski, 2016), or in other European countries, e.g., in the Czech Republic (Černý, 1975; Klír, Beránek, 2012) and the United Kingdom (Driver, 2006; Dyer, Jones, 2010).

The aforementioned decapitalisation of residential substance concerns various morphogenetic types of villages, although it is particularly concentrated east and south of the city of Lublin, and is characteristic of small villages, particularly built along a single road, villages including single households, and gentries. The presented situation results from the polarisation of space, technical-spatial adjustments manifested in the liquidation of parts of small isolated residential counties, dispersed building development, and concentration of building development in larger counties.

The Lubelskie Voivodeship is currently characterised by considerable dispersion of the rural settlement network. Less than 16 villages with an average population of 298 inhabitants occur per 100 km² (LDB, 2013). More than 82% of villages of the Lublin region have less than 500 inhabitants (15.3% of them have a population of less than 100). Large villages with more than 2000 inhabitants are inhabited by less than 0.7% of the rural population of the Lubelskie Voivodeship. The contribution of small and very small villages is increasing every day. This



Fig. 7. Signs of degradation of residential substance in the Ladeniska village, Dorohusk commune
Source: Wesołowska, M.



Fig. 8. Signs of degradation of residential substance in the Łuszków village, Horodło commune
Source: Wesołowska, M.

is caused by the processes mentioned above. The dispersion of the rural settlement network is expected to continue over the next years.

The specificity of the Lubelskie Voivodeship involves a slower process of reduction of the number of villages in spite of a general decrease in population density, and a decrease in the size of villages (in 2002, the average size of a settlement unit amounted to 521 people, and 501 people in 2010). Whereas in villages located in close vicinity of cities, the “reconstruction” of the settlement tissue can be expected (of course according to new urban patterns), in marginal areas with low transport accessibility, degradation of the settlement tissue will occur, consequently leading to the disappearance of further villages.

4.4. Symptoms of social degradation in the Lubelskie Voivodeship

As a result of a high number of the smallest villages, inhabited by a considerable portion of the population of the Lubelskie Voivodeship, as well as the unfavourable demographic trends described above, the population has low access to all types of services, educational or medical among others. A reduction of the number of primary schools in rural areas has been observed for many years. In the years 2000–2013, the number of schools decreased by 25%. This is directly related to the decrease in the number of

children at school age by almost 50% since 1999 (Fig. 9).

The decreasing number of children in the Lublin region resulted from a systematic decline of the birth rate. It began after World War II, but it strongly intensified in the second half of the 1980s. On the one hand, it was related to the appearance of another echo of the demographic low. On the other hand, it was caused by the contemporary national economic crisis and the deterioration of the living conditions of the population. Since the 1990s, birth rate values were determined by phenomena resulting from Poland entering the second phase of demographic transition, and the processes were accelerated by the country’s economic transformation. Finally, the birth rate in the Lubelskie Voivodeship decreased from 18.7‰ to 16.1‰ in the period of 1985–1988, and then to 10.5‰ in 2000.

The poor financial situation of many communes affects the state of the educational system. Poorer communes, not able to subsidise education, rationalise the school network. This results in an increase in the distance to schools in communes, particularly where small dispersed settlements predominate (Nowak, 2006). Due to a decrease in the number of children, further schools are likely to be liquidated in the upcoming years.

In reference to the protection of the health of the population, the Lubelskie Voivodeship has quite a positive image in comparison to other voivodeships of Poland. Owing to the many years of activity of

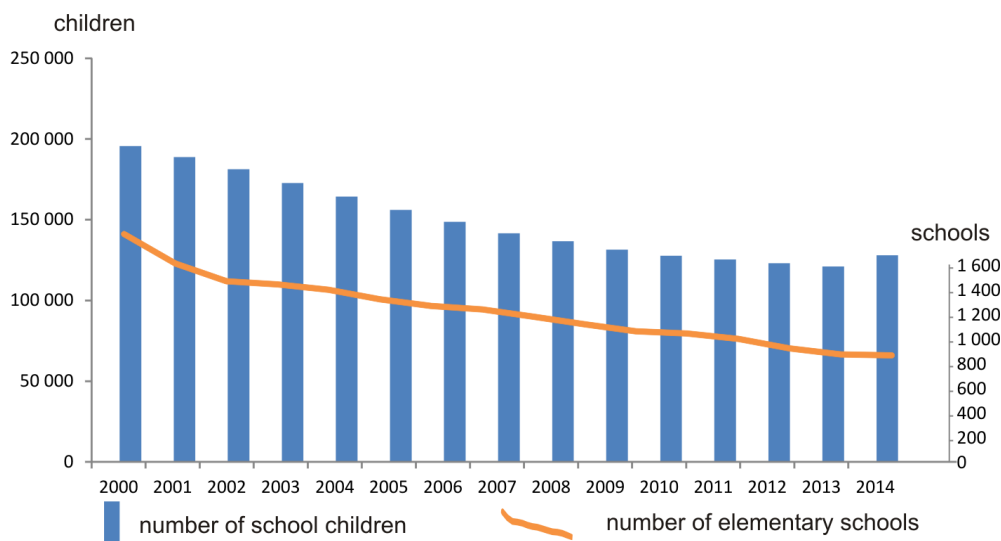


Fig. 9. Changes in the number of primary schools and the number of school children aged 7–15 in the Lubelskie Voivodeship in the years 1999–2014

Source: Developed by the authors based on data available at the Central Statistical Office of Poland, Local Data Bank

the Medical University in Lublin, the Lublin region is generally characterised by good access to medical staff and care. At the scale of the region alone, however, contrasts occur, reflecting strong variability of living conditions of residents. High positions of the Lublin region in the national ranking are a result of advanced health care in cities. In addition to the presence of hospitals, urban centres concentrate 70% of clinics and 60% of other forms of medical practices. Considering the scarce urban network in the voivodeship, the extensive rural areas can be assumed to still show backwardness in terms of health care, and their residents have limited access to basic consultations and medical treatments. A particularly unfavourable situation concerns rural counties around the largest cities (Lublin, Zamość, Chełm, Biała Podlaska) and those located at the boundaries of the voivodeship, as well as poviats located far from its centre: Łukowski, Rycki, Opolski, Włodawski, Hrubieszowski, Biłgorajski. In those areas, the number of medical staff and facilities is more than 40% lower than the average in the voivodeship.

Another manifestation of social degradation in the Lubelskie Voivodeship takes the form of the attitudes of the local rural communities. As emphasised in the Social Policy Strategy (2013), inhabitants of the rural areas of the Lubelskie Voivodeship show low civic activity, as well as low awareness of their influence on the situation of the local community. Non-governmental organisations, particularly in rural areas, are not sufficiently competent to implement social measures. A similar conclusion was drawn by A. Miszczuk (2010) who compared the Lubelskie Voivodeship with other voivodeships in terms of the number of non-governmental organisations, agricultural clubs, and producer groups. In comparison to the rest of the country, the Lubelskie Voivodeship features poor social capital, low activity and barely no feeling of common interest of local communities.

Such negative social attitudes result from the mentality and thought patterns developed back in the Communist reality. According to research (Bański et al., 2010; Szpak, 2013, among others), the notion of one's own helplessness and lack of influence on the surrounding reality is deeply rooted in the consciousness of modern rural communities, particularly in some typically agricultural and pe-

ripheral regions of the voivodeship. The responsibility for the development of the immediate vicinity (farm, village, commune) is usually transferred on to higher authorities. Little importance is ascribed to the activity of residents and local leaders. Such a passive attitude of rural communities results largely from the behaviour of local authorities which are often equally passive, and do not motivate people to undertake operative and independent initiatives. Another cause is the lack of necessary skills and preparation for undertaking one's own activity, resulting from historical circumstances. Under Russian rule, practically no traditions of improving professional qualifications and education of farmers existed. Due to this, the agricultural community of East Poland today is still characterised by a generally lower level of education, and therefore weak specific vocational preparation in comparison with other regions of the country. A distinctive feature of the local residents is the approach focused on survival, and not on change, determined by historical and cultural traditions, and rooted in their mentality (Bański, 1999).

5. Discussion

Demographic and social problems are thoroughly investigated in the Lubelskie Voivodeship. In accordance with the definition of a problematic area by J. Bański (1999), the Lublin region can be considered a spatial unit distinguished by abnormality of one or many elements of its space. In addition to the near-border location and considerable distance from well-developed central areas of Poland, the peripherality of the Lubelskie Voivodeship is also strengthened by an extensive group of historical, political, and demographic factors due to which the region shows evident features of a problematic area.

In addition to being treated as peripheral at the scale of the country, eastern regions of Poland also experience internal polarisation in the scope of socio-economic phenomena. The areas of concentration of population-related problems usually have a peripheral location in relation to large urban centres, far from the majority of transport routes. They particularly include the areas of Polesie and the

south-eastern part of the near-border area (Bański et al., 2014).

In the aspect of population, polarisation results from the advancement of the urbanisation processes. In larger urban centres and their suburbs, an inflow of population is observed. Peripheral areas located far from urban centres, of typically rural character, are depopulated (Stasiak, Mirowski, 1990; EDORA, 2011; Mischczuk, 2013). This results in strong spatial polarisation of all population-related phenomena, manifested in the demographic and social development of cities and suburban zones, as well as demographic degradation and accumulation of social problems in the remaining areas (Pinto-Correia, Breman, 2008; Bański et al., 2014).

The directions of transformations of rural areas depend on many factors, e.g., the size of settlement and its transport accessibility, as well as the demographic structure of the population. The process of concentration of settlement has generally progressed throughout the last several decades. It was manifested in a decrease in the number of villages, and an increase in their average size. According to B. Górz and R. Uliszak (2008: 17) *“a strong correlation exists between the infrastructure resources of a village and the number of inhabitants, largely determining the occurrence of many service-providing entities. The provision of a village in relevant services is the basic element developing the attractiveness of rural areas as places of residence of people, particularly in villages with peripheral location.”* The potential possibilities of socio-economic development are unquestionably greater in the case of the dominance of large compact settlements with a low degree of dispersion, but with a high degree of morphological complexity. Small rural settlements, loose, with simple morphological patterns, or dispersed villages do not favour such processes (Heffner, 2000). Irrespective of their character, population-related problems in the country contribute to the generally low efficiency of local socio-economic structures and decrease the possibilities of their development.

6. Conclusions

The analysis of the effect of demographic changes on selected areas of socio-economic life allowed for drawing the following conclusions:

- A natural population drop is generally observed throughout the Lubelskie Voivodeship, although the population processes are uneven. Two types of areas can be distinguished: centres (cities and suburban zones) and peripheries.

- Spatial polarisation of demographic structures occurs. Suburban areas are characterised by population growth and younger age structure. Areas far from city centres experience population decline, advanced processes of population aging, and deformations of the gender structure of residents (high index of feminisation particularly in the oldest age groups; in some areas, the number of women in the group of >70 years of age is more than twice higher than that of men).

- Moreover, the peripheral position strengthened by depopulation processes and the low level of socio-economic development results in low quality of life in such areas. Low quality of life contributes to the low attractiveness of the area. It is the primary factor causing the population outflow, particularly concerning the young and entrepreneurial population. As a consequence, demographic degradation occurs, manifested primarily in the high share of old population, and disturbed gender structure.

- Spatial polarisation of population results in a change in population density. Peripheral areas losing population become empty, hence the very low indices of population density (below 30 persons/km²).

- The population changes are an important factor hampering settlement development. The consequence of depopulation of a major part of rural areas is settlement degradation, manifested in the liquidation of a part of homestead settlements, dispersal of building development, and an increase in the number of vacant buildings. A permanent population regress leads to changes in the intensity of building development, potentially resulting in the dispersal of the settlement network, and occurrence of disappeared villages.

- The effect of demographic degradation is social degradation. It is manifested in a low level of social

activity and low saturation of the area with educational facilities. A low share of children in the population combined with low population density in many areas results in the decrease in the accessibility of schools and kindergartens. Therefore, many areas with peripheral location face degradation of social infrastructure—the number of schools, health centres, and other objects, e.g. shops, is reduced.

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References

- Bański, J.** (1999). Obszary problemowe w rolnictwie Polski (Problem areas in Polish agriculture – in Polish). In: *Prace Geograficzne IGI PZ PAN*, 172.
- Bański, J., Dobrowolski, J., Flaga, M., Janicki, W. and Wesołowska, M.** (2010). Wpływ granicy państwowej na kierunki rozwoju społeczno-gospodarczego wschodniej części województwa lubelskiego (The influence of the national border on directions of socio-economic development in the eastern part of the Lubelskie Voivodeship - in Polish). *Studia Obszarów Wiejskich*, 21.
- Bański, J. and Mazur, M.** (2009). Identyfikacja obszarów o silnej koncentracji problemów społecznych (Identification of areas with high concentration of social problems - in Polish). *Studia Obszarów Wiejskich*, 16, 79-96.
- Bański, J., Pantylej, W., Janicki, W., Flaga, M. and Wesołowska, M.** (2014). Współczesne przekształcenia społeczno-gospodarcze a potencjał ludnościowy wschodniej Polski (The impact of socio-economic transformation on population potential in the Eastern Poland - in Polish). *Studia Obszarów Wiejskich*, 36.
- Local Data Bank of Central Statistical Office, at: www.stat.gov.pl, DoA: 12.03.2015.
- Celińska-Janowicz, D., Miszczuk, A., Płoszaj, A. and Smełkowski, M.** (2010). Aktualne problemy demograficzne regionu Polski wschodniej (Current demographic problems of the region of East Poland - in Polish). *Raporty i analizy EUROREG*, 5.
- Copus, A.K.** (2001). From Core-Periphery to Polycentric Development: Concept of Spatial and Aspatial Peripherality. *European Planning Studies*, 9(4), 539-552. DOI: <https://doi.org/10.1080/713666491>.
- Černý, E.** (1975). Evidence zaniklých středověkých osad (Register of vanished medieval villages – in Czech). *Archeologické rozhledy*, 27.
- Davies, S. and Michie, R.** (2012). Peripheral Regions: A Marginal Concern? In: *EoRPA Paper 11/6*, Glasgow: University of Strathclyde Glasgow, Regional Policy in Europe, EoRPA European Policies Research Centre, at: http://www.eprc.strath.ac.uk/eorpa/Documents/EoRPA_11_Public/EoRPA%20Paper%2011-6.pdf, DoA: 04.01.2018.
- Domański, B.** (2008). Rozwój polskich metropolii a regiony peryferyjne. Bezpowrotna separacja czy współzależność rozwoju? (The development of Polish metropolises and peripheral regions - inevitable separation or the interdependence of development? - in Polish). *Studia KPZK PAN*, 120, 135-143.
- Driver, L.** (2006). *The Lost Villages of England*. London: New Holland Publishers Ltd.
- Dyer, C. and Jones, R.** (2010). *Deserted Villages Revisited*. Hatfield: University Of Hertfordshire Press.
- Eberhardt, P.** (1989). Regiony wyludniające się w Polsce (Depopulating Regions in Poland – in Polish). *Prace Geograficzne IGI PZ PAN*, 148.
- EDORA, European Development Opportunities for Rural Areas.** (2011). Final Report, ESPON & UHI Millennium Institute, at: https://www.espon.eu/sites/default/files/attachments/EDORA_Final_Report_Parts_A_and_B-maps_corrected_06-02-2012.pdf, DoA: 20.05.2016.
- Ekins, P., Dresner, S. and Dahlstrom, K.** (2008). The Four-capital Method of Sustainable Development Evaluation. *Environmental Policy and Governance*, 18(2), 63-80. DOI: <http://dx.doi.org/10.1002/eet.471>
- Fisher, A.G.** (1939). Production, primary, secondary and tertiary. *Economic Record*, 15(1), 24-38.
- Friedmann, J.** (1967). *A General Theory of Polarized Development*. Santiago: Ford Foundation.
- Glasgow, N. and Brown, D.L.** (2012). Rural Ageing in the United States: Trends and Contexts. *Jour-*

- nal of Rural Studies*, 28, 422-431. DOI: <https://doi.org/10.1016/j.jrurstud.2012.01.002>.
- Górz, B. and Uliszak, R.** (2008). Współczesne problemy ludnościowo-osadnicze Przeworska i powiatu przeworskiego (Modern population-settlement problems of Przeworsk and the Przeworsk powiat – in Polish). Kisiel, L., *Współczesne problemy rozwoju społeczno-ekonomicznego Podkarpacia ze szczególnym uwzględnieniem turystyki*, Przeworsk: Urząd Miasta Przeworska, 9-22.
- Grosse, T.** (2007). Wybrane koncepcje teoretyczne i doświadczenia praktyczne dotyczące rozwoju regionów peryferyjnych (Theory and Practice of Development of Peripheral Regions - in Polish). *Studia Lokalne i Regionalne*, 1(27), 27-49.
- Halas, M.** (2014). Modelovanie priestoroveho usporiadania a dichotomie centrum-periferia (Modelling of spatial organization and the dichotomy of centre – periphery – in Czech). *Geografie*, 119, 384-405.
- Heffner, K.** (2000). Typologia gmin wiejskich w Polsce pod kątem widzenia układów osadniczych (Typology of rural communes in Poland in the context of settlement patterns - in Polish). Rosner, A., *Lokalne bariery rozwoju obszarów wiejskich*, Warszawa: Fundacja Programów Pomocy dla Rolnictwa (FAPA), 65-85.
- Hirschman, A.O.** (1958). The strategy of economic development. New Haven: Yale University Press.
- Jedut, R.** (1990). Obszary problemowe rolnictwa Polski ze szczególnym uwzględnieniem regionu lubelskiego (Problem areas in Polish agriculture with particular consideration of the Lublin region - in Polish). Lublin: UMCS-PTG.
- Jelonek, A.** (1986). Obszary zagrożeń demograficznych (Areas of demographic threats - in Polish). *Folia Geographica, Seria Geographica-Oeconomica*, 19, 33–49.
- Jelonek, A.** (1988). Obszary problemowe w zakresie zagrożeń demograficznych w Polsce (Problem areas in the scope of demographic threats in Poland - in Polish). *Seria Geografia UAM*, 42, 67–77.
- Kahila, P., Lakso, T. and Suutari, T.** (2006). The Role of Policy and Governance in European Peripheral Regions, Publications 5, Seinajoki: Univeristy of Helsinki, at: <http://www.helsinki.fi/ruralia/julkaisut/pdf/publications5.pdf>, DoA: 04.01.2018.
- Klír, T. and Beránek, M.** (2012). A social-economic interpretation of the layouts of deserted villages. (An example of a deserted village at the „V Žáku” site in Klánovice Forest in Prague). *Studies in Postmedieval Archaeology*, 4, 289-346.
- Kotowska, I.E.** (1999). Przemiany demograficzne w Polsce w latach 90. w świetle koncepcji drugiego przejścia demograficznego (Demographic transformations in Poland in the context of the second demographic transition - in Polish). *Monografie i Opracowania SGH*, 461.
- Kotowska, I.E.** (1998). Teoria drugiego przejścia demograficznego a przemiany demograficzne w Polsce w latach 1990 (Theory of the second demographic transition vs. demographic transformations in Poland in the 1990s - in Polish). *Studia Demograficzne*, 4, 3-36.
- Koźlak, A.** (2007). Poprawa dostępności transportowej regionów peryferyjnych w świetle polityki spójności Unii Europejskiej (Improvement of transport accessibility of peripheral regions in the context of the EU Cohesion Policy - in Polish). Michałowska, M., *Procesy integracyjne wybranych systemów transportowych*, Katowice: Wydawnictwo Akademii Ekonomicznej, 73-87.
- Krugman P.** (1991). Increasing Returns and Economic Geography. *The Journal of Political Economy*, 99(3), 483-499.
- Kurkiewicz, J., Stonawski, M. and Węgrzyn, D.** (2004). Ocena demograficznych konsekwencji zmian płodności i umieralności w Polsce w okresie transformacji ekonomiczno-społecznej (Assessment of demographic consequences of changes in fertility and mortality in Poland in the period of the economic-social transformation - in Polish). *Studia Demograficzne*, 1, 25-54.
- Latocha, A.** (2011). Contemporary landscape of depopulated areas as a mosaic of relict and active landscape features (Stołowe Mts case study). *The Problems of Landscape Ecology*, 30, 309-316.
- Miazga, M.** (1990). Wyludnianie wsi lubelskiej. Uwarunkowania, następstwa, środki zaradcze (Depopulation of rural areas in the Lublin Region. Conditions, effects, remedia measures - in Polish). Warszawa: IG-iPZ PAN.
- Mishtal, J.Z.** (2008). Understanding low fertility in Poland: Demographic consequences of gendered discrimination in employment and postsocialist neoliberal restructuring. *Demographic Research*, 21, 599-626.
- Miszczuk, A.** (1993). Wyludnianie się wsi a rolnictwo wschodniej Lubelszczyzny (Depopulation of rural areas in the context of agriculture in the eastern part

- of the Lublin Region - in Polish). *Dokumentacja Geograficzna*, 3.
- Miszczuk, A.** (2010). Kapitał ludzki i społeczny w procesie rozwoju obszarów wiejskich województwa lubelskiego (Human and social capital in the process of rural development in the Lubelskie Voivodeship - in Polish). *Studia KPZK PAN*, 76, 144-160.
- Miszczuk, A.** (2013). Uwarunkowania peryferyjności regionu przygranicznego (Conditions of the peripheral character of the near-border region - in Polish). Lublin: Norbertinum.
- Myrdal, G.** (1957). *Economic theory and underdeveloped regions*. Londyn: Gerald Duckworth.
- Novotny, L., Mazur, M. and Egedy, T.** (2015). Definition and delimitation of peripheries of Visegrad countries. *Studia Obszarów Wiejskich*, 39, 35-48.
- Nowak, A.** (2006). Bariery dostępu do edukacji ludności wiejskiej a reforma edukacji (Barriers in access of rural communities to education vs. the education reform - in Polish). *Nierówności Społeczne a Wzrost Gospodarczy*, 9, 459-469.
- Olechnicka, A.** (2004). Regiony peryferyjne w gospodarce informacyjnej (Peripheral regions in the information economy - in Polish). Warszawa: Wydawnictwo Naukowe SCHOLAR.
- Perroux, F.** (1964). *L'Économie du XX siècle* (The economy of the XX century - In French). Paris: Presses Universitaires de France.
- Perroux, F.** (1955). Note sur la nation de pôle de croissance (Note on the growth pole natio - in French). *Ekonomie Appliquée*, 8, 307-320.
- Pinelli, A. and De Rose, A.** (2001). Delayed Fertility in Europe. Determinants and Consequences, Helsinki: European Population Conference 07-09, June, 2001, at: www.vaestoliitto.fi/EAPS2001.htm, DoA: 12.04.2015.
- Pinelli, A., Hoffmann-Nowotny, H.-J. and Fux, B.** (2001). Fertility and new types of household and family formation in Europe. *Population Studies*, 35, Strasbourg Cedex: Council of Europe Publishing.
- Pinto-Correia, T. and Breman, B.** (2008). Understanding Marginalization in the Periphery of Europe: a Multidimensional Process. Brouwer, F. editor, *Sustainable Land Management*, Cheltenham, Northampton: Edward Elgar, 11-41.
- Rogers, A. and Willekens, F.J.** (1986). Migration and settlement. A multiregional comparative study, Dordrecht: D. Reidel Publishing Company.
- Rychtaříková, J.** (1999). Is Eastern Europe experiencing a second demographic transition? *Acta Universitatis Carolinae, Geographica*, 34(1), 19-44.
- Sasinowski, H.** (2002). Depresja demograficzna na obszarze „Ściany Wschodniej” (Demographic depression in the area of the “Eastern Wall” - in Polish). *Studia Obszarów Wiejskich*, 2, 185-192.
- Sobotka, T.** (2008). The diverse faces of the Second Demographic Transition in Europe. *Demographic Research*, 19, 171-224. DOI: [10.4054/DemRes.2008.19.8](https://doi.org/10.4054/DemRes.2008.19.8).
- Sobotka, T. and Toulemon, L.** (2008). Changing family and partnership behaviour: Common trends and persistent diversity across Europe. *Demographic Research*, 19, 85-138. DOI: [10.4054/DemRes.2008.19.6](https://doi.org/10.4054/DemRes.2008.19.6).
- Stasiak, A. and Mirowski, W.** (1990). The processes of depopulation of rural areas in Central and Eastern Europe. Warszawa: IGiPZ PAN.
- Stępień, Cz.** (2001). Terytorialne zróżnicowanie umieralności w Polsce w 1999 roku (Territorial variability of mortality in Poland in 1999 - in Polish). Kowalewski, J.T., Materiały na konferencję naukową: Teraźniejszość i przyszłość demograficzna polskich regionów, Łódź: Absolwent, 39-55.
- Strategia Polityki Społecznej Województwa Lubelskiego na lata 2014–2020** (Social Policy Strategy of the Lubelskie Voivodeship for the years 2014-2020 - in Polish), 2013. Lublin: Regionalny Ośrodek Polityki Społecznej w Lublinie, at: http://www.mcpr.zamosc.pl/zalaczniki/6633_politykispol_wojlub_projdokonsultacji.pdf, DoA: 20.05.2015.
- Surkyn, J. and Lesthaeghe, R.** (2004). Value Orientations and the Second Demographic Transition (SDT) in Northern, Western and Southern Europe: An Update. *Demographic Research*, 3, 45-86. DOI: [10.4054/DemRes.2004.S3.3](https://doi.org/10.4054/DemRes.2004.S3.3).
- Szlachta, J.** (1984). Wschodnie tereny przygraniczne jako obszar problemowy (Eastern near-border areas as a problem area - in Polish). *Gospodarka Planowa*, 12, 552-559.
- Szpak, E.** (2013). Mentalność ludności wiejskiej w PRL (Mentality of the rural population in Communist Poland - in Polish). Warszawa: Wydawnictwo Naukowe SCHOLAR.
- Weber, G.** (2011). Schrumpfung – der blinde Fleck einer wachstumsfixierten Raumplanung (Schrumpfung als Herausforderung für ländliche Räume, München, MAR 14–15, 2011) (Shrinkage - missing piece of spatial planning (Shrinkage as a challenge for rural areas, Munich, MAR 14–15, 2011 - In German).

Lehrstuhl für Bodenordnung und Landentwicklung, TU München, Schrumpfung als Herausforderung für ländliche Räume, Lösungswege, Strategien und Instrumente, 37–42.

Wesołowska, M. (2011). Wyludnianie się i zanik wsi w województwie lubelskim (Depopulating and decline of village in Lubelskie Voivodeship – in Polish). *Studia Ekonomiczne – Zeszyty Naukowe Wydziałowe*, 95, Katowice: Uniwersytet Ekonomiczny, 139-146.

Wesołowska, M. (2013). Demographic Process in the Lubelskie Voivodeship Villages. *Studia Regionalia*, 36, 187-202.

Wolski, J. (2016). The landscape of abandoned villages in the Western Bieszczady: The problem of definition and classification. *Geographia Polonica*, 89(3), 371-387. DOI: <https://doi.org/10.7163/GPol.0064>.

Zaktualizowana koncepcja przestrzennego zagospodarowania kraju. (2005). (Updated concept of the spatial planning of the country). Warszawa: Rządowe Centrum Studiów Strategicznych, at: <http://www.fundusze-strukturalne.gov.pl/informator/npr2/dokumenty%20strategiczne/kpzk.pdf>, DoA: 20.05.2015.



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