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INTERNAL DEVELOPMENT CONDITIONS IN RURAL AREAS OF EASTERN POLAND

Abstract: Economic, along with social, development is the result of changes in the economic area determined by numerous factors. Endogenous elements which may play a leading role include the economic activity of inhabitants, the advantages of the region and their usage, the type of economy, and the nature of demographic phenomena. Many studies on social and economic development in particular regions of Poland show huge disparities which come from various factors. Numerous authors classify the territory of Eastern Poland as a so-called problematic region where negative demographic phenomena correspond with economic ones. However, it is worth mentioning that the nature of these processes is characterized by numerous internal differences in the regions. The main goal of this study is to assess the social and economic conditions of development in rural areas of Eastern Poland in the period 2005-2011. The author emphasized selected elements affecting the social and economic development of rural areas of Eastern Poland's voivodeships and took into account demographic, infrastructural and economic conditions that influenced the social and economic character of the rural areas.

Key words: Development, entrepreneurship, infrastructure, population potential.

Introduction

Rural areas in Poland are highly diversified in terms of social and economic development and these differences are also great within the regions. It stands to reason that both domestic economic policy (*e.g.* compensatory grants) and the cohesion policy of the European Union (its spatial range) facilitate the neutralization of regional differences [Rosner 2010, p. 11]. The goal of the cohesion policy is to reduce disparities in the development of the whole European Union and to ensure cohesion between all its regions. In 2007 the European Union introduced a new financing scheme and solutions for the cohesion policy. In comparison to the period 2004-2006, funds for elimination of economic and social inequalities were increased. Due to the fact that Eastern Poland (including the Warmińsko-Mazurskie, Podlaskie, Lubelskie, Podkarpackie and Świętokrzyskie Voivodeships) was identified as a problematic region, it was possible to introduce the operational program for boosting economic growth of

the macroregion [Plawgo 2011, p.106]. The main goal of the study is to assess conditions of social and economic development of rural areas of Eastern Poland. This can be carried out by means of analysis of conditions and factors. According to Chojnicki [1999] the conditions are passive and poorly controllable in the short-term, whereas factors are active and more controllable and their implementation is necessary for restructuring and regional development. Major conditions include: the demographic situation, the structure of settlement network, the natural environment and its resources, infrastructure and type of economy. Factors affecting social and economic changes include: development of market institutions, development of scientific and innovation centres, investment and foreign capital involvement. Many books and studies on that subject present numerous discussions on directions and possibilities aimed at reducing growing inequalities between and inside the regions. According to Henderson [2001] the key in explaining development and underdevelopment is to understand the relation between the forces of agglomeration and dispersion. Economies of scale and diversity affect concentration of economic activity. According to Sobala-Gwosdz [2005, p. 35] one dilemma is still being discussed – the question of exogenous or endogenous development. This author pays attention to the fact that theories of endogenous development on a regional level take into account the necessity of providing funds for stimulation of local entrepreneurship and infrastructure which may facilitate the emergence of spontaneous entrepreneurship [*ibidem*, p. 35]. Bański [2011, p. 16] remarks that the new paradigm of the regional policy will be effective use of specific regional development potentials for long-term growth, employment and cohesion. In other words he suggests a transition from traditional to directed redistribution of means for endogenous territorial potential. Gorzelak [2003] tried to identify external and internal factors affecting regional development. He points out that, despite considerable external help, the weakest regions are unable to leave the inability circle if they are not given a chance for demand for their potential which may occur as a result of changes in location criteria or competitiveness connected with new circumstances. If those two conditions appear at the same time the underdeveloped regions may turn into winners [Sobala-Gwosdz, 2005, p. 37]. Studies by Gorzelak [2007, p. 17] showed two groups of subregions with relatively lower development level, located in Eastern Poland. On the one hand, such regions as Rzeszowsko-Tarnobrzieski and Łomżyński show “boosted” growth, but on the other hand the Bialsko-Podlaski, Chełmsko-Zamojski and Krośnieńsko-Przemyski regions suffer from a long period of stagnation, far below the regression line. Regional capital cities play a very important role in development, *e.g.* Rzeszów – a dynamic academic centre and a place of modern processing industries. However, the range of the city’s impact on southern and eastern areas of the regions in particular is insignificant. The short range of urban impact on the surrounding area is a serious problem in the development of rural areas. Numerous theories and concepts of regional development pay attention to the extremely important role of emerging relations between a city and its local region and

the interdependence between the development of a city and its surrounding region [Smętkowski 2007, p. 164].

The study focused on selective elements influencing the social and economic development of rural areas of Eastern Poland's voivodeships with demographic, infrastructural and economic conditions affecting the social and economic character of rural areas. It used statistical data from BDL GUS, analysing the period 2005-2011. The voivodeships of Eastern Poland are the most rural regions in the Republic of Poland. In three voivodeships – Podkarpackie, Świętokrzyskie and Lubelskie – the percentage of people living in rural areas exceeded 50 per cent, and in the two remaining voivodeships – Podlaskie and Warmińsko-Mazurskie – it amounted to 40 per cent. From the development possibilities perspective the most difficult situation is in rural areas with a poorly diversified economy where agriculture is the main source of income for inhabitants. Villages become depopulated and have to overcome numerous barriers for development [Grzybek 2011, p. 91]. However, social and demographic processes within the eastern regions are spatially diversified.

1. Demographic conditions

The areas of strategic challenges for both regional policy and policies supporting regional competitiveness and territorial cohesion of the country are demographic trends and full use of labour. The structure of settlement networks, urbanization level and significance and impact of regional centres are also of great importance. In Eastern Poland's voivodeships rural areas prevail. The highest urbanization level measured by percentage of urban population was recorded in the Podlaskie Voivodeship (Table 1). Urban network includes mainly small towns, which are in greatest number in the Podkarpackie and Warmińsko-Mazurskie Voivodeships, and only a few significant urban centres (Lublin, Białystok, Olsztyn, Rzeszów, Kielce). In rural areas the most numerous are villages between 2 thousand and 5 thousand inhabitants. The exception is the Podlaskie Voivodeship where the number of villages between 7 thousand and 10 thousand inhabitants is the highest (Table 2). In the Podlaskie and Świętokrzyskie Voivodeships the highest percentage of rural area population referred to locations with more than 10 thousand inhabitants; in the Podkarpackie and Warmińsko-Mazurskie Voivodeships it was connected with locations between 5 thousand and 7 thousand inhabitants (Table 3).

One of the basic features which enables the assessment of demographic potential is the size of the population. In rural areas of Eastern Poland in the period 2005-2011 population decreased by 2.8 per cent from 4,176,192 to 4,057,233 people. An increase in the number of rural area inhabitants was registered in two voivodeships (Świętokrzyskie and Warmińsko-Mazurskie); in all others it fell (Table 4). The highest increase in population was recorded in the Warmińsko-Mazurskie Voivodeship (the dynamics of population change in the period 2005-2011 amounted to 103.4), and the highest fall in the Podlaskie Voivodeship (97.4).

Table 1

Total population and urban population in the voivodeships of Eastern Poland in 2010

Voivodeship	Total population	Urban population	% of urban population
Lubelskie	2154.9	1004.9	46.6
Podkarpackie	2102.7	870.5	41.4
Podlaskie	1189.2	718.1	60.4
Świętokrzyskie	1268.3	572.2	45.1
Warmińsko-Mazurskie	1427.6	853.8	59.8

Source: Data from BDL, author's own calculations.

Table 2

Size structure of population number in gminas in Eastern Poland voivodeships in 2010

Voivodeships	Total number of gminas	Below 2,000 inhabitants	2,000-5,000 inhabitants	5,000-7,000 inhabitants	7,000-10,000 inhabitants	Over 10,000 inhabitants
Lubelskie	193	1	87	59	29	17
Podkarpackie	144	3	20	36	44	41
Podlaskie	105	5	69	21	7	3
Świętokrzyskie	97	1	34	20	22	20
Warmińsko-Mazurskie	100	1	44	28	19	8

Source: Data from BDL.

Table 3

Participation rate of population by class size in the voivodeships of Eastern Poland in 2010

Voivodeships	Below 2,000 inhabitants	2,000-5,000 inhabitants	5,000-7,000 inhabitants	7,000-10,000 inhabitants	Over 10,000 inhabitants
Lubelskie	0.1	29.5	30.8	20.8	18.8
Podkarpackie	0.5	6.3	17.7	30.3	45.2
Podlaskie	1.4	52.6	26.2	12.3	7.5
Świętokrzyskie	0.3	20.3	17.1	26.6	35.7
Warmińsko-Mazurskie	0.2	27.5	29.6	26.7	16.0

Source: Data from BDL.

Table 4

Dynamics of population change in rural areas of Eastern Poland's voivodeships
in the period 2005-2011

Voivodeships	Population in 2005	Population in 2011	Dynamics of population change in the period 2005-2011
Lubelskie	1 162746	1 162682	100.0
Podkarpackie	1 251437	1 247951	97.4
Podlaskie	489 739	476 955	97.4
Świętokrzyskie	701 519	702 609	100.2
Warmińsko-Mazurskie	570 751	590 202	103.4

Source: Data from BDL, author's own calculations (Tabs. 4-8).

The dynamics of population change is mostly shaped by two elements: natural growth and migration balance. In the period in question in rural areas a negative population growth was observed; however, there were also signs of improvement, from -0.71‰ to -0.55‰. The highest natural population growth was in the Warmińsko-Mazurskie Voivodeship (2.91‰ and 2.31‰ respectively in the period of the study). The Podkarpackie Voivodeship took second place (0.91‰ and 1.20‰). Other voivodeships faced a negative population growth in their rural areas (Table 5). In the Podlaskie and Lubelskie Voivodeships there was a slight increase in population growth; however, it was still negative. In the period 2005-2011 in the Podlaskie Voivodeship there was an increase from -3.77‰ to -2.87‰, and in the Lubelskie Voivodeship from -2.33‰ to -1.98‰.

Table 5

Natural growth and migration balance in rural areas of Eastern Poland's
voivodeships in the period 2005-2011

Voivodeships	Natural Growth (‰)		Migration balance (‰)	
	2005	2011	2005	2011
Lubelskie	-2.33	-1.98	-0.31	-0.51
Podkarpackie	0.91	1.20	0.82	0.50
Podlaskie	-3.37	-2.87	-0.96	-0.69
Świętokrzyskie	-2.02	-2.06	0.73	0.57
Warmińsko-Mazurskie	2.91	2.31	-1.31	-0.53

Low natural population growth is caused by numerous reasons. Birth control in families, upbringing and children's education according to financial means are more widespread. A consumption lifestyle focussed on professional career and comfort in life also plays an important role. Families with a smaller number or no children at all gain in popularity [Kiniorska 2011]. Migration plays an important role in population

processes. Spatial mobility is a result of various social and economic transformations which significantly shape the demographic image of micro- and macroregional units. Differences in the strength, direction and structure of migration come not only from the level of social and economic development but also from the history and tradition of spatial relations between regions [Warych-Juras 2002].

In the period 2005-2011 in rural areas of Eastern Poland there was a negative migration balance which means that the outflow increased (in 2005 the balance measured in absolute numbers was 42 persons, in 2011 an impressive 208 persons). A positive balance was registered in the Świętokrzyskie and Podkarpackie Voivodeships, and a negative balance was reported in the remaining voivodeships. As the official statistical data show, in comparison with western or central voivodeships the outflow from Eastern Poland is weaker. The main problem is a negative migration balance in the group with higher education (the 25-34 age group in particular). This may be treated as “a brain drain”, which reduces endogenous development potential and lowers the investment attractiveness of Eastern Poland (Miszczyk *et al.* 2011, p. 97). A migration outflow that is regular and selective in terms of age and sex reduces the population of women at reproductive age, making negative population growth the main depopulating factor. This is an advanced depopulation stage which is more difficult to stop than that fueled mainly by migration outflow. Moreover, steps taken to stop migration outflow are insufficient as changes in age and sex structure as well as pronatalistic policies are necessary. As a result, such depopulation may be irreversible [*ibidem*, p. 98].

The age of a particular population is an important factor in evaluating demographic changes. Rural areas and small towns were until recently classified as the oldest in demographic terms as the younger population migrated to larger centres in search of jobs. However, starting from the 1990s, in the period of social and economic transformation, migration intensity to urban centres deteriorated and migration directions changed, with dominant city-village and city-suburban zone trends [Kiniorska 2012, p. 87]. In assessing the age structure of a given population some tendencies may be observed. In the period 2005-2011 participation rate for the pre-working-age population fell from 23.8 per cent to 18.3 per cent, for the working-age population it increased from 59.0 per cent to 64.0 per cent, and for the pension age population it remained almost unchanged, with a rising tendency, exceeding 17 per cent. The most advanced aging process was recorded in the Podlaskie Voivodeship where participation rate for the pension age population exceeded 20 per cent (Table 6). The youngest age structure was found in the Warmińsko-Mazurskie Voivodeship; in 2011 the pension age exceeded 22 per cent, albeit with a falling trend.

This territory had the lowest percentage of working-age population. Studies on demographic changes in terms of age structure show that the main features of rural areas of Eastern Poland in comparison to other regions of the country are: a higher decrease in the pre-working-age population (the Warmińsko-Mazurskie and

Table 6

Population structure by age in rural areas of Eastern Poland's voivodeships
in the period 2005-2011

Voivodeships	Pre-working-age population		Working-age population		Pension-age population	
	2005	2011	2005	2011	2005	2011
Lubelskie	23.2	20.3	58.1	61.3	18.7	18.4
Podkarpackie	24.8	21.4	59.6	62.6	15.6	16.0
Podlaskie	22.7	19.9	56.5	59.9	20.8	20.2
Świętokrzyskie	22.5	19.5	59.4	62.4	18.1	18.1
Warmińsko-Mazurskie	25.6	22.2	61.3	64.3	13.1	13.5

Podkarpackie Voivodeships are exceptions as the participation rate for the youngest group in 2011 exceeded 21 per cent), a higher increase in the working-age population and smaller in the pension age group. However, the decreasing pre-working-age population, which in 2011 amounted to 18.3 per cent, is the real problem. In the forthcoming years it will reduce potential labour resources and will lead to huge problems in the area of social welfare.

The impact of demographic processes on economic phenomena is mostly connected with the necessity of providing an appropriate quality and quantity of human resources which is necessary for maintaining or improving a competitive position in the contemporary knowledge-based economy. A loss of this capital may limit endogenous possibilities for development and lower the investment attractiveness of a given region. Moreover, due to a shrinking ready market it may hamper the development of some services [Miszczyk *et al.* 2011, p. 99].

2. Economic conditions

Stronger and stronger globalization trends and European integration processes as well as the introduction of a market economy have founded new spatial conditions for the development of various walks of life. Therefore, it is important to identify factors and conditions for the transformation of rural areas for the present and for the future [Zioło 2011, p. 77]. It turned out that agrarian function as a dominant (or sometimes the only) function in rural areas is economically unfavourable and impossible to sustain in the long term. New development strategies for rural areas were aimed at their multifunctional character [Kamińska 1996, 2011], understood mostly in the context of improved living and working conditions for families inhabiting rural areas. Nowadays, the most important direction of rural area development is their increase in economic diversity. This can be carried out by improving functional structure, *i.e.* the development of new social and economic functions [Pałka 2010, p. 164]. Functional and spatial transformations are affected by the location and activities of diversified businesses. Taking the economic character of the region's rural areas into account

some tendencies may be made visible by analysing changes in the number of businesses in time and space. In the period 2005-2011 the number of businesses registered in the REGON system increased by 14 per cent – from 187.9 thousand to 214.4 thousand. Most of them were registered in the private sector where their participation increased from 178.8 thousand to 205.5 thousand (15 per cent). As far as location is concerned in 2005 the largest number of businesses was recorded in gminas of the Świętokrzyskie Voivodeship (more than 82 businesses per 1,000 working-age persons), while the smallest number was in the Lubelskie Voivodeship (71 businesses per 1,000 working-age persons). In 2011 entrepreneurship increased and exceeded 80 businesses per 1,000 working-age persons in all voivodeships; the largest increase was in the Lubelskie Voivodeship and the smallest in the Podkarpackie Voivodeship (Table 7).

Table 7

Businesses in rural areas of Eastern Poland's voivodeships registered in the REGON system in the period 2005-2011

Voivodeships	Businesses per 1,000 working-age persons		Public Sector		Private Sector	
	2005	2011	2005	2011	2005	2011
Lubelskie	71.8	80.8	5.6	4.7	94.4	95.3
Podkarpackie	79.0	80.5	4.8	4.2	95.2	95.8
Podlaskie	75.9	81.3	4.7	4.2	95.3	95.8
Świętokrzyskie	82.9	88.1	4.2	3.7	95.8	96.3
Warmińsko-Mazurskie	75.5	83.6	4.6	3.6	95.4	96.4

Economic development is largely influenced by location (suburban zone), good infrastructure, large number of companies and high activity of inhabitants. Location of urban centres, their influence on the surrounding areas and functional structure are also of significance. Eastern Poland is not economically homogenous, which results in diversified levels of economic activities. These particular voivodeships were included in Eastern Poland because all economic parameters per person were lower than in other regions of Poland. It should be noted that environmental conditions, location close to borders and the relatively high importance of agriculture in comparison to other sectors of the economy are important elements affecting the region in question. These factors also have an immense impact on the development of entrepreneurship. Another element is composed of social and cultural features of the region's population. In this region there are huge disparities in economic activity resulting, among others, from the location of rural areas (influence of cities, economic character of the surrounding area including industrial function, partitioned agriculture). The concentration of economic potential (*e.g.* measured by the level of entrepreneurship), which raises the investment attractiveness of a small area (vicinity of the voivode-

ship's capital city and subregional centres), may lead to a lack of coherence and equal chances for development in the remaining territories. Investment attractiveness is not a constant phenomenon and undergoes the same changes as most economic or social factors. A particular impact for those changes comes from the activities of the local authorities which should support the development of entrepreneurship on their territories by various initiatives, starting from increasing the quality of human and social capital, and carrying out so-called hard investments affecting the value and quality of infrastructure, *e.g.* roads, electrical networks *etc.* [Zarębski 2010, p. 95].

The development of infrastructure, including technical infrastructure, is almost unanimously considered – both on a local and regional level – as one of the key elements necessary for positive and successful social and economic transformations in rural areas [Heffner 2011, p. 22]. Assessing infrastructural investments measured by the participation of water supply system users, the highest result, exceeding 75 per cent in 2011, was in the Podlaskie Voivodeship and the Warmińsko-Mazurskie Voivodeship, and the lowest in the Podkarpackie Voivodeship (63.3 per cent).

As far as sewerage system users are concerned, a huge underinvestment was noted. The highest increase in the number of users of the sewerage system was recorded in rural areas of the Podkarpackie Voivodeship (from 26.8 per cent to 41.3 per cent). A huge underinvestment was visible in two voivodeships – Podlaskie and Lubelskie. A similar trend in underinvestment was observed in gas supply availability in rural areas of Eastern Poland, except for the Podkarpackie Voivodeship where more than 50 per cent of inhabitants used the system; in other areas it ranged from 1.7 per cent (in the Podlaskie Voivodeship) to 10.9 per cent (in the Lubelskie Voivodeship) (Table 8).

Table 8

Users of technical infrastructure in rural areas of Eastern Poland's voivodeships
in the period 2005-2011

Voivodeships	Users of the water supply system		Users of the sewerage system		Users of the gas supply system	
	2005	2011	2005	2011	2005	2011
Lubelskie	67.1	71.2	10.5	16.1	8.0	10.9
Podkarpackie	61.2	63.3	26.8	41.3	50.5	53.2
Podlaskie	71.9	75.3	13.4	15.8	1.5	1.7
Świętokrzyskie	70.1	74.7	10.5	19.4	8.1	10.1
Warmińsko-Mazurskie	72.7	75.9	21.8	27.2	2.0	2.7

According to Kamińska, [2010, p. 144] the costs of sewerage systems are closely connected with the character of the settlement network. Not all rich gminas are able to finance such investments. Dispersed settlement networks increase the cost of the sewerage system, and the provision of infrastructure to rural areas is much worse than to urban areas.

Summary

Disparities in social and economic development are often of a structural nature conditioned by the peripheral location of regions, underdeveloped infrastructure and unfavourable economic structure. The current structure of the goals of the cohesion policy is mainly aimed at supporting social and economic development of the poorest regions, the so-called peripheral and ultra-peripheral regions. However, it is worth mentioning that the disparities are exceptionally strong over time. Moreover, they increase with downturns and troughs in the economy. Identification of selected elements of social and economic conditions is the starting point for studies to recognize the factors and conditions of the demographic and economic character of rural areas in Eastern Poland. The region in question is characterized by considerable underdevelopment in comparison to the rest of the country as well as internal differences between the regions. Development centres – apart from the voivodeship capital city – are subregional centres. In areas located far from cities, with traditional agriculture and unfavourable economic conditions, huge underinvestment is also visible. These areas often do not use their environmental and recreational potential, which was not included in this study, but they are also important for the possible development of rural areas in Eastern Poland.

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