SOCIAL DEVELOPMENT OF RURAL AREAS IN THE EUROPEAN UNION MEMBER STATES IN 2000-2012

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A b s t r a c t. The purpose of research is to analyze selected social indicators of rural sustainable development in the EU Member States in 2000-2012, and to determine their main tendencies. To describe those tendencies and changes that took place in rural areas, the factor analysis has been implemented. Three main factors have been worked out to determine the synthetic index (SI) of social development of rural areas of the EU Member States. It enabled the authors to affirm that the leading EU countries in terms of social development are Luxemburg, Denmark, the Netherlands, Belgium and Sweden, those among the least developed are the countries, which joined the EU after two last waves of its enlargement, namely Croatia, Latvia, Lithuania, Poland and Romania. The main reasons for such a differentiation are the quality of rural life related problems: rural poverty due to low incomes, great dependence on agriculture, depopulation, poor infrastructure etc.

INTRODUCTION

Encouraging rural employment, tackling rural poverty and improving the quality of life are all important direct and indirect goals for EU rural development policy. It is obvious that poverty is, on average, higher in rural areas as compared to urban areas. Rural areas face a number of very specific economic and structural challenges, such as low income levels, lack of employment opportunities, low levels of education and low quality of infrastructure. Two commonly used concepts capture the nature of the problems: the poverty of rural areas and poverty in rural areas. Poverty of rural areas refers to the existence of certain disadvantages of rural regions, which result in a higher risk of poverty in those areas, when compared to urban areas. Poverty in rural areas is a human extension of those disadvantages – it concerns the poverty of people living in rural areas. Due to the great diversity of rural areas across the EU-28, establishing and measuring consistent indicators on both concepts has proven difficult, and hence these challenges are often not addressed as well as they should be. The last two EU waves of enlargement have also highlighted the stark differences in the economic development levels and the standard of living, in particular in rural areas, of the old and newer Member States [*Rural*… 2010].

The Study on Poverty and Social Exclusion in Rural Areas [*Study*… 2008] identified some specific problems, which characterize rural areas and determine the risk of poverty and social exclusion for the rural population. This set of problems includes several difficulties linked to demography, remoteness and education, as well as some special features of the labor market.

In literature, some studies have broadly shown that one of the most important factors for the sustainable development of rural areas was the growth of basic social-economic conditions [Galluzzo 2010, 2013]. The others say that social sustainability is related to social capital, social inclusion, social exclusion and social cohesion in rural economies [Manos et al., 2011].

Despite the fact that rural areas vary in many respects, a lot of them still endure from structural circumstances that make them economically deprived in contrast to urban communities and frequently result in a labor market condition that is less favorable [Stanef 2012]. Nowadays, population and employment trends, as well as the location of economic activity in general, show clear and growing differences between urban and rural areas, and between the economies of different regions [O'Shaughnessy 2008]. There is a strong interrelation between social exclusion, poverty or misery, and non-sustainable practices [Gutberlet 1999]. At the same time, the social dimension has commonly been recognized as the weakest 'pillar' of sustainable development, notably when it comes to its analytical and theoretical underpinnings. Even so, one can argue that the key challenges of sustainable development reside at the interfaces – synergies and trade-offs – between its various dimensions [Lehtonen 2004].

Nevertheless, many rural locations continue to reflect a strong reliance on agriculture or other production based employment, which is often part-time and low-paid. A poorly developed and inefficient physical structure and failure to provide the level of social amenities needed to contribute to a better quality of life are argued to characterize many rural locations [Commins et al. 2005].

It should be underlined that agriculture itself has a crucial role in the development of rural areas and their local communities, being the main supplier of resources, linking together primary sector with processing and food industry and, of course, serving as the most important employer for rural population. On the other hand, rural businesses sourcing the different components of their products benefit in using the notion of 'local' in their product branding are able to improve social-economic conditions [Wilson and Whitehead, 2012].

BACKGROUND TO THE RESEARCH

About 14% of the population in the EU's predominantly rural regions suffers from employment rates of less than half the EU average, and there are areas of low per-capita GDP [*Rural*… 2014]. In spite of progress, Europe's employment rates – at 69% on average for those aged 20-64 – are still significantly lower than in other parts of the world. Only 63% of women are in work compared to 76% of men. Only 46% of older workers (55-64) are employed compared to over 62% in the US and Japan. Young people have been severely hit by the crisis, with an unemployment rate over 21%. About 80 million people have low or basic skills, but lifelong learning benefits mostly the more educated. By 2020, 16 million more jobs will require high qualifications, while the demand for low skills will drop by 12 million jobs. 80 million people (including 19 million of children) were at risk of poverty prior to the crisis. Eight percent of people in work do not earn enough to make it above the poverty threshold.

On the other hand, demographic ageing is accelerating. As the baby-boom generation retires, the EU's active population started to shrink as from 2013/2014. The number of

people aged over 60 is now increasing twice as fast as it did before 2007 – by about two million every year compared to one million previously. The combination of a smaller working population and a higher share of retired people will place additional strains on EU welfare systems [*Communication*... 2010].

The Europe 2020 strategy [*Communication*… 2010] is focused on five ambitious goals in the areas of employment, innovation, education, poverty reduction and climate/ energy. For the purposes of managing rural development policy through Rural Development Programs (RDPs) these broad objectives are given more detailed expression through 6 priorities, last but not least of those declares *promoting social inclusion, poverty reduction and economic development in rural areas.*

RESEARCH PURPOSE, MATERIALS AND METHODS

The main goal of the paper is to analyze general social situation in rural areas of the EU Member States, particularly whether there is an interrelation between social development and welfare (by GDP per capita) in 10 EU countries with the best and worst results by the value of the SI of social development. The following social indicators have been estimated: (1) employment in agriculture (% of total), (2) unemployment rate (% of active population), (3) at-risk-of-poverty rate (% of total population), (4) total social expenditures (euro per inhabitant), (5) rural population (%) (tab. 2).

To compare the social situation in analyzed rural areas of each EU Member State, during a twelve-year time (2000-2012), we completed a factor analysis with the application of synthetic index (SI) through the calculation model.

We used social indicators defined by Eurostat and mainly obtained from the World Bank, OECD and European Commission statistics databases in order to estimate the social sustainability. The data sets selection was related to certain indicators, in terms of their harmonization, quality, geographical coverage and availability. The proposed social indicators have been considered, taking into account the constraints of data availability.

We input the initial variables into the factor analysis model to define the impact of the indicators on the rural areas' social situation. Each variable has definitive contribution to the overall SI and, as a result, to social development of respective country. The original secondary variables set, which is not unified and therefore not adequate for the comparison has been replaced by new variables, more convenient for practical application. Factor analysis was based on the study of interrelationships between variables in a multidimensional extend and to clarify the reasons for the general variability [Harman 1967, Bolch and Huang 1974, Morrison 1990, Jajuga 1993, Tadeusiewicz 1993, Dobosz 2001].

The analysis fulfilled a linear transformation of the original n-variables X_i ($i = 1, ... n$) to the new secondary t-variables U_k ($k = 1, ... t$), which were uncorrelated, and their variance sum equals total variance of the original variables X_i. Variables U_k have been defined as main factors. The variance of each new factor explains certain variation value of the primary (original) variables and is represented by eigenvalue. Subsequently isolated main factors indicated less variability each next time. The decision concerning definition of the stage of termination isolating factors depended mainly on state of random variation, which remained undefined by the new factors. All the factors were applied to determine the SI with no exclusions, having defined 100% of the total variation.

The value of the main factors and the synthetic index has been calculated by the following equations:

$$U_k = a_{1k} x_1 + a_{2k} x_2 + a_{3k} x_3 + \dots a_{nk} x_n \quad (1)$$

where:

U_k – value of the main k-factor, $k = 1, 2, \dots t$,

a_{ik} – estimated significance of primary i-variable by the primary k-factor, $i = 1, 2, ..., n$,

x_i – value of primary i-variable, $i = 1, 2, \dots n$.

$$W_s = b_1 U_1 + b_2 U_2 + b_3 U_3 + \dots b_t U_t \quad (2)$$

where:

W_s – synthetic index of social development of rural areas in the EU countries,

b_i – estimated significance of main k-factor, which reflects a certain percentage of variation, $i = 1, 2, \dots t$,

U_k – value of main k-factor, $k = 1, 2, \dots t$.

Ranking results of ecological development of EU Member States are presented in respective tables.

RESULTS

Almost in all the EU countries the level of employment in agriculture has been decreased during 2000-2012, however, the higher level of economic development represents the country, the fewer share of population employed in agriculture it has (e.g. Belgium, Denmark, the Netherlands, Luxemburg etc.). On the contrary, in the Central and Eastern European Countries (CEEC) (Romania, Bulgaria, Poland, Latvia and Lithuania) as well as in the southern part of the EU-15 (Greece, Spain, Portugal) and in Croatia – employment level in agriculture is above 10% (fig. 1).

Within the framework of the common trends, in most "new" EU Member States the stronger decline in agricultural labor was observed, being a part of overall increased unemployment level, mainly because of restructuring during transition.

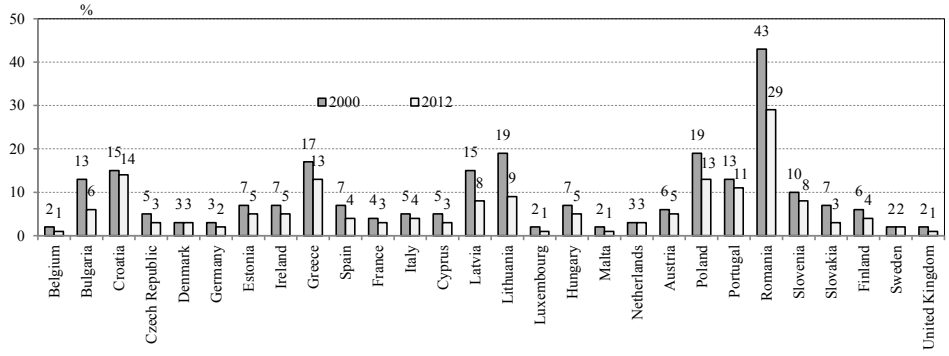

Figure 1. Changes in employment rate in agriculture of the EU-28, 2000 and 2012, % of total.
Source: grouped by the authors based on http://data.worldbank.org/indicator/NY.GDP.PCAP.CD.

During the factor analysis of five primary variables, the same number of main factors was distinguished. First, second and third factors reflected 84.71% of the total variation (53.46%, 17% and 14.23% respectively) (tab. 1). The first factor was influenced mostly by the employment in agriculture and rural population; second factor – by unemployment rate; and the third one – by at-risk-of-poverty rate (tab. 2).

Not surprisingly, the representatives of highly developed countries from the

Table 1. Factor analysis of social development of rural areas in the EU Member States, 2000-2012

Factor	Eigenvalue	Percentage of variation	Cumulative percent
1	2.67	53.46	53.46
2	0.85	17.01	70.47
3	0.71	14.23	84.71
4	0.42	8.36	93.07
5	0.35	6.93	100.00

Source: own calculations.

Table 2. Factors, which determine social sustainable development of rural areas in the EU Member States, 2000-2012

No.	Primary variables[a]	Cumulative percent = 84.71%		
		factor 1	factor 2	factor 3
1	Employment in agriculture,% of total – [x_1]	0.8291	0.0346	0.3119
2	Unemployment rate (% of active population) – [x_2]	0.1267	0.9515	0.1425
3	At-risk-of-poverty rate (% of total population) – [x_3]	0.2174	0.1590	0.9552
4	Total social expenditures, euro per inhabitant– [x_4]	0.6956	0.4779	0.1182
5	Rural population,% – [x_5]	0.8833	0.1197	0.0867

[a] the variables (2) and (3) have been expressed as negative values and the other (1), (4) and (5) – as positive values, x_i – value of primary i-variable, i = 1,2, … 5, U_k – value of main k-factor, k = 1, 2,…5.
Source: own calculations.

"old" Europe – Belgium, Denmark, the Netherlands, Luxembourg and Sweden – possess leadership in terms of social development of rural areas. On the other hand, relatively "new" members – Latvia, Lithuania, Poland, Croatia and Romania – seem to have the worst social profile among the EU-28 (tab. 3, fig. 2). It reveals disparities between these two "poles" and proves strong dependence of social development of respective country on its economic welfare.

Ranking of 10 selected EU countries (by the highest and lowest score of SI) based on GDP per capita (fig. 3) displays that the countries' distribution within these two groups has not been changed. The grouping of the countries by the lowest social development level coincide with the areas of low per-capita GDP. The same is true for the wealthiest EU Member States, but in the opposite direction: high ranks by social indicators correspond with GDP value.

In this connection, the interrelations between main determinants of rural poverty should be mentioned: for example, rural areas depopulation (being the global international process) in the Central and Eastern European countries is linked to migration (both moving to the cities and emigrating); at the same time, the population ageing and low birth-rates are also potential threats for rural communities.

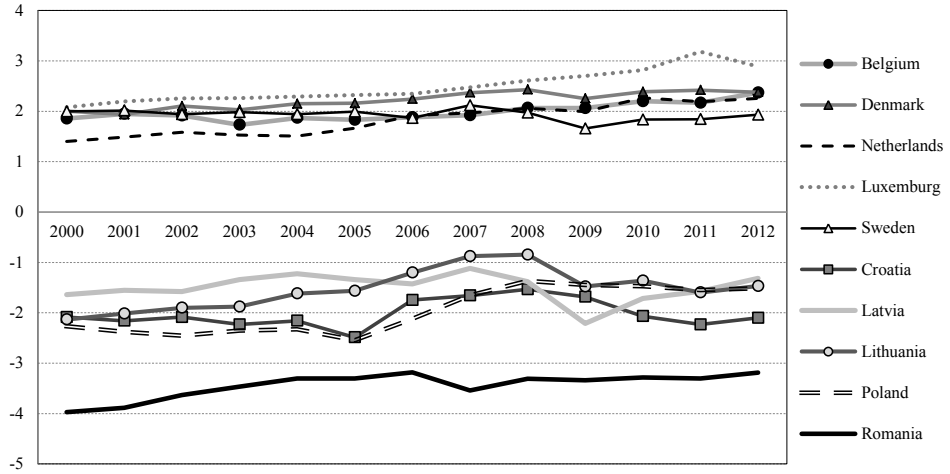

Figure 2. Ranking of 10 EU Member States with the best and worst results by the value of the SI of social development of rural areas, 2000-2012
Source: own calculations.

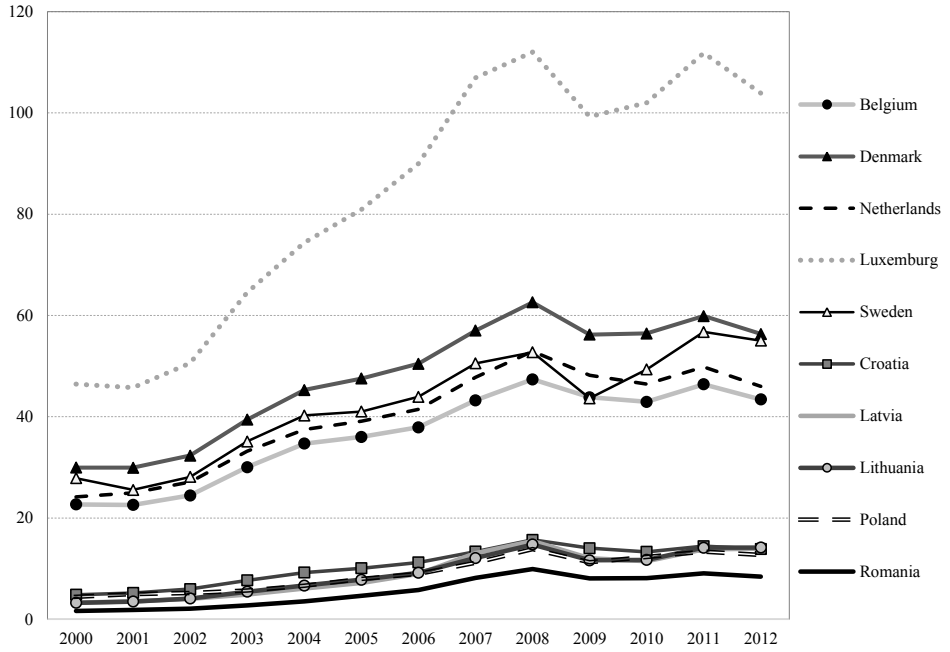

Figure 3. Ranking of 10 EU Member States* by the value of GDP per capita (current US$), 2000-2012
* with the best and worst results in terms of the value of the SI of social development of rural areas.
Source: grouped by the authors based on http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

Table 3. Ranking of the EU Member States based on the social development of rural areas, 2000-2012

Country	2000		2001		2002		2003		2004		2005		2006	
	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank
Austria	0.6540	10	0.6895	11	0.6819	11	0.6151	11	0.7183	11	0.7284	11	0.7680	11
Belgium	1.8562	4	1.9500	3	1.9160	4	1.7308	4	1.8686	4	1.8303	4	1.8807	4
Bulgaria	-1.4330	20	-1.5643	22	-1.3990	20	-1.0899	20	-1.0521	20	-0.7355	19	-0.8801	20
Croatia	-2.0849	25	-2.1583	26	-2.0849	26	-2.2317	26	-2.1583	26	-2.4867	26	-1.7462	26
Cyprus	-0.0547	13	-0.0132	13	0.0530	13	0.0762	13	0.0459	13	-0.0085	14	0.2083	13
Czech Republic	0.3369	12	0.4013	12	0.4921	12	0.4473	12	0.4993	12	0.3673	12	0.4752	12
Denmark	2.0024	2	1.9354	4	2.1043	2	2.0295	2	2.1482	2	2.1597	2	2.2432	2
Estonia	-1.0950	19	-1.0368	19	-0.8578	19	-0.8162	19	-0.9129	19	-0.6072	18	-0.4690	18
Finland	0.9295	8	1.0073	9	1.1256	7	1.2124	6	1.2635	6	1.2638	6	1.2737	6
France	0.5773	11	0.9326	10	1.0774	8	1.1208	7	1.0816	8	1.1772	7	1.2341	7
Germany	1.0743	6	1.0336	8	1.0119	10	1.0618	8	1.0503	9	0.9717	10	0.9335	10
Greece	-1.9589	24	-1.8169	24	-1.7671	24	-1.6752	24	-1.5063	24	-1.3260	22	-1.3031	24
Hungary	-0.3055	14	-0.1622	14	-0.0472	14	-0.1504	14	-0.0733	15	-0.2289	16	-0.3758	17
Ireland	-0.7729	17	-0.6791	17	-0.5286	17	-0.4412	17	-0.3492	17	-0.2789	17	-0.0821	16
Italy	-0.3407	15	-0.3159	15	-0.2582	15	-0.2061	15	-0.0347	14	0.0234	13	0.0583	14
Latvia	-1.6409	23	-1.5551	21	-1.5760	23	-1.3422	21	-1.2224	21	-1.3398	23	-1.4283	25
Lithuania	-2.1344	26	-2.0151	25	-1.9002	25	-1.8778	25	-1.6164	25	-1.5644	25	-1.2028	22
Luxembourg	2.0778	1	2.1947	1	2.2561	1	2.2606	1	2.2906	1	2.3229	1	2.3453	1
Malta	1.0102	7	1.0438	7	1.1477	6	0.9696	10	1.0135	10	1.1360	8	1.1547	8
Netherlands	1.4029	5	1.4874	5	1.5821	5	1.5269	5	1.5079	5	1.6665	5	1.9194	3
Poland	-2.2657	27	-2.3776	27	-2.4553	27	-2.3526	27	-2.3265	27	-2.5451	27	-2.1215	27
Portugal	-1.6232	21	-1.4762	20	-1.4656	21	-1.4547	23	-1.4374	23	-1.3500	24	-1.2712	23
Romania	-3.9718	28	-3.8835	28	-3.6325	28	-3.4669	28	-3.3021	28	-3.3038	28	-3.1845	28
Slovakia	-1.6360	22	-1.5939	23	-1.5238	22	-1.4187	22	-1.4013	22	-1.2627	21	-0.9120	21
Slovenia	-0.9433	18	-0.8629	18	-0.7638	18	-0.6457	18	-0.7496	18	-0.8971	20	-0.8719	19
Spain	-0.5591	16	-0.4078	16	-0.3484	16	-0.2780	16	-0.3169	16	-0.1017	15	-0.0441	15
Sweden	1.9959	3	2.0142	2	1.9419	3	1.9815	3	1.9411	3	1.9929	3	1.8649	5
United Kingdom	0.8440	9	1.0538	6	1.0417	9	0.9771	9	1.0935	7	1.0515	9	1.0638	9

SI – the value of the synthetic index of rural areas' social development in the EU Member States.

Source: own calculations.

Table 3. Ranking of the EU Member States based on the social development of rural areas, 2000-2012

Country	2007		2008		2009		2010		2011		2012		2000-2012	
	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank	SI	Rank
Austria	0.8682	10	1.0024	9	1.0330	9	1.0930	10	1.1416	9	1.0619	11	0.8504	11
Belgium	1.9218	5	2.0667	3	2.0620	3	2.1986	4	2.1704	4	2.3697	3	1.9863	3
Bulgaria	-1.0147	22	-0.8323	21	-0.9580	20	-0.7449	19	-1.1791	22	-1.2437	21	-1.0867	20
Croatia	-1.6587	27	-1.5351	27	-1.6836	26	-2.0681	27	-2.2332	27	-2.0999	26	-2.0177	27
Cyprus	0.2686	13	0.3121	13	0.1911	13	0.2267	13	0.2508	13	0.0345	13	0.1224	13
Czech Republic	0.6316	12	0.8464	12	0.7027	12	0.7186	12	0.6247	12	0.6266	12	0.5515	12
Denmark	2.3691	2	2.4301	2	2.2516	2	2.3878	2	2.4193	2	2.3787	2	2.2199	2
Estonia	-0.4517	18	-0.3912	18	-0.9847	21	-0.5754	18	-0.7994	18	-0.5056	17	-0.7310	18
Finland	1.3273	7	1.3725	7	1.2945	7	1.4683	7	1.4707	7	1.6327	7	1.2801	7
France	1.3712	6	1.6176	6	1.4866	6	1.5890	6	1.7291	6	1.6736	6	1.2822	6
Germany	0.8658	11	0.9468	11	1.0096	10	1.0467	11	1.0856	11	1.1895	10	1.0216	10
Greece	-1.1741	24	-0.9892	23	-1.1435	22	-1.2058	23	-1.4002	23	-2.1328	27	-1.4923	23
Hungary	-0.0717	17	0.0317	16	-0.2358	16	-0.2363	16	-0.3621	16	-0.3705	16	-0.1991	16
Ireland	0.1352	14	0.2765	14	0.0439	15	0.0993	15	0.0592	15	0.0219	14	-0.1920	15
Italy	0.1131	15	0.1977	15	0.1478	14	0.2132	14	0.0854	14	0.0032	15	-0.0241	14
Latvia	-1.1162	23	-1.3801	26	-2.2115	27	-1.7148	26	-1.5725	25	-1.3172	23	-1.4936	24
Lithuania	-0.8767	21	-0.8455	22	-1.4795	25	-1.3615	24	-1.5982	26	-1.4690	24	-1.5340	25
Luxembourg	2.4738	1	2.6114	1	2.7036	1	2.8172	1	3.1825	1	2.8864	1	2.4941	1
Malta	1.1582	8	1.1916	8	1.2470	8	1.2801	8	1.2756	8	1.4032	8	1.1562	8
Netherlands	1.9656	4	2.0577	4	1.9941	4	2.2653	3	2.1888	3	2.2551	4	1.8323	5
Poland	-1.6528	26	-1.3676	25	-1.4460	24	-1.4719	25	-1.5464	24	-1.5133	25	-1.9571	26
Portugal	-1.2123	25	-1.1239	24	-1.1541	23	-1.1163	22	-0.9848	20	-1.2451	22	-1.3011	22
Romania	-3.5413	28	-3.3087	28	-3.3379	28	-3.2831	28	-3.3030	28	-3.1888	28	-3.4391	28
Slovakia	-0.6676	19	-0.5617	19	-0.8287	19	-0.8194	21	-1.0016	21	-1.1025	20	-1.1331	21
Slovenia	-0.7832	20	-0.7061	20	-0.7240	18	-0.7831	20	-0.9144	19	-0.9385	18	-0.8141	19
Spain	0.0477	16	-0.0913	17	-0.4400	17	-0.4275	17	-0.6338	17	-1.0489	19	-0.3577	17
Sweden	2.1189	3	1.9717	5	1.6585	5	1.8357	5	1.8416	5	1.9308	5	1.9300	4
United Kingdom	1.1034	9	0.9888	10	0.9222	11	1.1022	9	1.0939	10	1.2558	9	1.0455	9

SI – the value of the synthetic index of rural areas' social development in the EU Member States.
Source: own calculations.

Poor infrastructure and access to public services are the result of lower investment levels and lack of entrepreneurship. This is most apparent when one considers the transport infrastructure in Poland, Bulgaria and Romania, which has not been maintained or experienced significant investment in the past, discouraging major potential investors from building production plants and so relocating to other countries instead [*Rural*… 2010].

Another important reason of strong differentiation between the majority rural areas of Western Europe and all rural areas in Eastern Europe is that the latter part still demonstrates a relatively high dependency on agriculture for employment (see fig. 1). Consequently, low incomes and the seasonal instability of the work cause a potential risk of poverty and social unsustainability.

CONCLUSIONS

The paper has pointed out many discrepancies among different the EU nations in terms of income (per capita GDP), rural population, employment rate in agriculture and total unemployment rate, at-risk-of-poverty rate and total social expenditures of respective countries. The present research has underlined the main tendencies and weaknesses of rural areas' sustainability in reference to social development. It revealed disparities between the "old" and the "new" EU Member States and proved strong dependence of social development of analyzed countries on their economic welfare, particularly concerning economic conditions of rural areas.

The grouping of the countries by the lowest social development level coincide with the areas of low per-capita GDP. The same is true for the wealthiest EU Member States, but in the opposite direction: high ranks by social indicators correspond with GDP value. Accordingly, the most economically developed countries – Belgium, Denmark, the Netherlands, Luxembourg and Sweden – are in the lead in terms of social development of rural areas. Contrariwise, Latvia, Lithuania, Poland, Croatia and Romania drop far behind in their social profile. It corroborates disparities between these two "clusters" of the EU-28 and proves strong dependence of the country's social development on its prosperity.

Furthermore, the higher level of economic development of the country involves the fewer share of population employed in its agriculture. This is another important reason of strong differentiation between the majority rural areas of Western Europe and all rural areas in Eastern Europe, inasmuch as the Eastern European countries are yet highly dependent on agriculture, including for employment. As a result, low incomes and the work seasonality cause a potential risk of poverty and social unsustainability.

The EU has defined its subsequent key guidelines for rural social development by 2020 and proposed the headline targets, among which are facilitating diversification, poverty reducing through creation of new small enterprises and job creation, promoting local development in rural areas, stimulation tertiary degree attainment. All the targets are interrelated and interdependent.

It must be noted that in this regard the role of public institutions of each Member State is decisive and even crucial. Indeed, only "domestic" public sector has the authority and means to fulfill an exceptional task to promote measures and actions for rural social development, taking into account its specific situation in particular country. To this end, the European Commission proposes that EU goals are translated into national targets. In reality, the variety of rural areas is very diverse; moreover, these discrepancies refer not

only to the countries itself, but are also related to different regions of the same locality. Besides, to develop concrete recommendations, the policy makers have to consider the key employment and poverty challenges facing rural areas of one or another country. On the other hand, the mechanisms of funding (both from the EU funds and from national sources) being one of the most considerable point should be defined.

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ROZWÓJ SPOŁECZNY OBSZARÓW WIEJSKICH W KRAJACH UNII EUROPEJSKIEJ W LATACH 2000-2012

Streszczenie

Celem badania jest analiza wybranych wskaźników wymiaru społecznego pod kątem zrównoważonego rozwoju obszarów wiejskich w państwach UE w latach 2000-2012 i określenie ich głównych tendencji. W celu opisania tendencji i zmian zachodzących na obszarach wiejskich była przeprowadzona analiza czynnikowa. Do określenia wskaźnika syntetycznego (WS) rozwoju społecznego obszarów wiejskich w państwach członkowskich UE zostały wykorzystane trzy główne czynniki. Stwierdzono, że wiodącymi krajami UE pod względem rozwoju społecznego są: Luksemburg, Dania, Holandia, Belgia i Szwecja, a najsłabiej rozwinięte są kraje przyjęte do UE w trakcie dwóch ostatnich etapów jej rozszerzenia, czyli Chorwacja, Łotwa, Litwa, Polska i Rumunia. Główne przyczyny takiego zróżnicowania to problemy związane z jakością życia na wsi, m.in.: ubóstwo na terenach wiejskich, niskie dochody, uzależnienie od rolnictwa, depopulacja na wsi, słaba infrastruktura.

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