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Podkarpackie Province– as an example of peripheral EU region

Abstract:

This paper is an attempt to show the factors contributing to the peripherality of the Podkarpackie Province among other EU regions. The social and economic parameters used in the analysis reveal the development level of Podkarpackie Province in comparison to other Polish provinces and regions of the enlarged EU.

General profile:

Podkarpackie Province is located in the southeastern part of Poland. It was established on January 1st, 1999 and includes the former provinces: Rzeszowskie, Przemyskie, Krośnieńskie (except Biecz and Lipinki), as well as parts of Tarnowskie and Tarnobrzekskie Provinces.

Podkarpackie Province is a border region, as it borders on three other Polish regions: Świętokrzyskie, Małopolskie, Lubelskie and on two countries: Ukraine and Slovakia.

The area of the province is 17 844 square kilometers (according to the status from December 31, 2003) which places the Podkarpackie Province at the 11th position among other regions in Poland. The population figure is 2 097,2 thousand (2003). As regards the number of inhabitants, Podkarpackie is the 9th province in Poland. The similar potential of population have got following regions: Lubelskie, Kujawsko-pomorskie and Pomorskie.

Podkarpackie Province consists of 159 communes united into 21 districts and 4 city districts. The region's capital city and seat of the provincial authorities is Rzeszów – a city with 159,1 thousand inhabitants. Other major cities of Podkarpackie are Przemyśl (67,5 thousand inhabitants), Stalowa Wola (66, 8 thousand inhabitants), Mielec (61, 3 thousand inhabitants), Tarnobrzeg (50,3 thousand inhabitants) and Krosno (48,1 thousand inhabitants). The region is not well urbanized. The urban coefficient amounts to 41,2% and about 20% of urban population live in Rzeszów.

The region's population density is similar to the average for the whole country and equals to 118 persons per square kilometer (the average density in Poland is 122 persons per square kilometer). Similar population density is in following regions: Pomorskie, Kujawsko-pomorskie, Opolskie, Świętokrzyskie and Wielkopolskie.

The number of people living in Podkarpackie region has not changed over the last 4 years. This region is characterized by the highest rate of population growth that amounted in 2003 to 1,2‰ (the average for Poland was -0,4‰). The internal and international net migration for the permanent residence was -1,2.

The natural raw materials available in Podkarpackie region are nature gas, oil and brimstone. The exploitation of the first two raw materials has got a long tradition in that area (e.g. Museum of Oil Industry in Bóbrka near Krosno), but today the deposits are very scarce. There are two oil refineries in Jedlicze and Jasło – remainders of the once well developed oil industry. In the northern part of Podkarpackie there are some brimstone beds (near Tarnobrzeg) but they are not exploited any more.

In Podkarpackie Province we can observe soils with different levels of fertility. The best soils are in the central part of Podkarpackie (around Rzeszów) and the worst ones in Kotlina Sandomierska (Sandomierz Valley). The climatic conditions such as vegetation period of plants and area shape differentiate the prospects of agricultural development. The best conditions for development of agriculture are in the central part of the region, the worst ones are in the region's low mountain areas (Bieszczady). Podkarpackie region is characterized by the high percentage of forest areas which include 36 % of the total area of the region.

The Podkarpackie Province is located at the intersection of some important lines of communication. The international road going through the region connects Western Europe with Ukraine. Some other major public roads lead from Slovakia to the central and eastern Poland. A very important trump of the region is the railway line from Silesia to the Ukraine, but its economic potential has been not used in full extent yet. In Rzeszów there is an airport with the Poland's second longest airstrip (from that airport Ryanair - one of the biggest air carriers started at the end of 2005 the connection with Frankfurt and London and plans to fly passengers to other cities in Europe.)

Another very important factor of the region development is its intellectual potential. It shows how well educated and well-qualified the people in that province are.

Podkarpacie region is characterized by the high number of graduates of both high and technical high schools: 61 out of every 100 region inhabitants aged 19 are graduates from those kinds of schools.

In Rzeszów there are four universities – University of Rzeszow, University of Technology and two other private universities. In general there are 17 colleges and universities in Podkarpacie with the total number of 77 453 students. The number of students for each 10 000 inhabitants has reached 369 and is still increasing. The number of university teachers per 10 000 inhabitants equals however only to 14,1 which is the lowest coefficient in our country.

Many researchers (Dutkowski, Kabath, Tarkowski, Tomalak 2000; Golinowska 1998; Gorzelak, Jałowiecki 2000; Gorzelak 2003; Gorzelak 2004; Hryniewicz 2000) stress the fact, that the living conditions can be the measure of region's social development. Unfortunately, the analysis of living conditions causes a lot of problems, resulting from the subjective approach of the given researcher to this issue. Furthermore, the living conditions are not uniform due to the specificity of the region.

Researchers working on the problem of regional development use mostly the following parameters of living conditions: per capita income of communes' budgets in PLN, electricity consumption per household, number of cars bought by 1 000 inhabitants, number of doctors for each 10 000 inhabitants, number of phones per 1 000 inhabitants, number of inhabited flats, infant deaths for each 1000 live births (Dutkowski, Kabath, Tarkowski, Tomalak 2000).

The first factor proposed by researchers from Research Institute on Market Economy – per capita income of communes' budget could estimate the income of population.

In 2000 this rate reached 1 000 PLN, what means that Podkarpacie was on the 14th place (In Poland the average for whole country amounted to 1 193 PLN). Similar rates were in two other provinces - Podlaskie and Świętokrzyskie.

Energy consumption in an average household can indirectly indicate the level of people consumption. In this regard Podkarpackie Province was in the year 2000 the second last in the country. Energy consumption per capita amounted to 475,9 kWh, compared with the national average of 646,3 kWh. Similar rates were in Podlaskie and Świętokrzyskie provinces. The second parameter showing the level of consumption is number of cars sold per each 1 000 inhabitants. In 2000, 6 new cars were sold for each 1 000 inhabitant. This value made Podkarpacie the country's 9th region. Podkarpacie was last as regards the number of inhabited flats. (262,7 flats per 1 000 inhabitants, national average - 302,3).

The number of doctors per 1 000 inhabitants shows the level of medical assistance. In 2000 the rate was 17,2 doctors for each 10 000 inhabitants. Podkarpacie was within the group of following regions: Zachodniopomorskie, Wielkopolskie, Lubuskie, Kujawsko-pomorskie, Lubelskie and Warmińsko-mazurskie (Dutkowski, Kabath, Tarkowski, Tomalak 2000).

The number of phones per 1000 inhabitants indicates that Podkarpacie is the second last in the country (248,8 phone lines per 1 000 inhabitants, national average in 2003 - 321,4).

The rate of infant mortality is a measure of civilization development of the given region. In 2000 from each 1 000 live born babies in Podkarpacie 9,2 deceased. The similar values were noted in Mazowieckie and Lubuskie regions (Dutkowski, Kabath, Tarkowski, Tomalak 2000).

The value of per capita Gross Domestic Product was 14 569 PLN in 2002 and that was less than the national average which amounted to 20 431 PLN. The percentage of the employees in agriculture amounted in Podkarpacie in 2002 to 30,8 % of the overall number of region's employees.

A higher proportion of people working in agriculture was in three regions: Lubelskie (39,4 %), Podlaskie (36,5 %) and Świętokrzyskie (31,0 %).

The number of industrial workers equals to 28,2 % of the total number of employees and this value is consistent with the national average (28,6 %). Proportions of service workers differ from the country's average value and amount to 41,1 %. Podkarpackie is characterized by the lowest number of employees working in services. The similar values were registered in following regions: Lubelskie, Świętokrzyskie and Podlaskie.

Tab. 1. Percentage of region's inhabitants working in agriculture, industry and services

REGION	Working in:		
	agriculture	industry	services
Poland	19,3	28,6	52,0
Dolnośląskie	9,5	32,4	58,2
Kujawsko-Pomorskie	19,1	29,4	51,4
Lubelskie	39,4	18,1	42,5
Lubuskie	10,2	31,3	58,5
Łódzkie	19,8	30,6	49,7
Małopolskie	23,7	27,0	49,3
Mazowieckie	20,4	21,6	58,0
Opolskie	18,5	32,9	48,7
Podkarpackie	30,8	28,2	41,1
Podlaskie	36,5	18,6	45,0
Pomorskie	9,5	31,1	59,4
Śląskie	4,1	39,5	56,4
Świętokrzyskie	31,0	24,9	44,2
Warmińsko-Mazurskie	17,9	28,1	54,0
Wielkopolskie	20,3	32,7	47,0
Zachodniopomorskie	8,3	29,6	62,2

Source: CEC 2004

The average monthly gross earnings are a very important parameter of living conditions. In Podkarpackie Province the average monthly gross earnings amounted to 1950 PLN in 2003. It was the lowest monthly level of earnings in Poland. (the average monthly national gross wages - 2315 PLN). The highest earnings were noted in Mazowieckie Province 1 055 PLN. Similar earnings were in: Lubuskie (1 990 PLN), Lubelskie (1 995 PLN), Kujawsko-pomorskie (2 001 PLN) and Warmińsko-mazurskie (2 003 PLN).

Another important factor of region development is the unemployment rate. Poland's lowest unemployment rate was in 2003 in Mazowieckie (15,1%) and Małopolskie (16,2%). Registered unemployment rate in Podkarpackie was just slightly different from the national average and equaled to 20,2% (national average 20,0%). The highest unemployment rate was in Warmińsko-mazurskie Province - 30,6 %.

Podkarpace Province in comparison to other EU regions

Poland is a diverse country. The disproportions in development of Polish provinces are territorially and historically determined (Jałowiecki 1996, Hryniewicz 1996, Gorzelak 1999). This disproportion in development of Polish provinces is a result of long-term process. The durability of value systems and cultural patterns results from social behavior. The tendency to recurrence and invariability of human behavior factors assumes that the past can be the best measure of the future and understanding of the present. Economical and social differences between Polish regions still result from the period of time before Poland's partition at the end of 18th century. Hryniewicz says that in that period of time Poland was already divided into the economically well developed and bad developed parts. The Vistula river was the border line between both parts. (Hryniewicz 1996).

The partition period has not only preserved that diversity but even weakened the economical potential of Galicia achieved by it at the time before the partitions. The confirmation of the long-term development process of Polish provinces is a map, which shows the disproportion of per capita income (Hryniewicz 1996). The conclusion resulting from the map analysis is following: 20% of communes with the Poland's lowest per capita income are located within the former Russian and Austrian partitions.

The communes with the highest per capita income are located mostly within the former Prussian partition. The historical facts are clear-cut. The historical factors are responsible for macro regional division of Poland's territory into the developed west and underdeveloped east. (Gorzelak 1999).

In the eastern part there are „islands” of better development. The main “island” is Warsaw and smaller “islands” are Olsztyn, Białystok, Lublin and Rzeszów.

The range of the area of individual EU regions on the regional level is very high. This is the result of many factors such as the shape of area or population density.

The biggest regions are situated in the northern part of EU: Övre Norrland (154 312 km²) region in Sweden and Pohjois-Suomi (133 580 square km) region in Finland.

The smallest EU regions are two Spanish autonomies located in Africa - Melilla (12 km²) and Ceuta (19 square kilometers).

Podkarpace Province belongs with the area of 17 844 square kilometers to the bigger EU regions. As regards the territory the British region of Eastern Scotland (17 987 square kilometers), Hungarian – Észak-Alföld (17 755 square kilometers), French – Basse-Normandie (17 589 square kilometers), Czech Jihozápad (17 616 square kilometers) and Polish region Kujawsko-pomorskie (17 970 square kilometers) are of similar size.

Besides, the EU regions differ from each other as regards the number of population. The range between regions with the biggest and the smallest number of population is huge. The most populated is the French region Île de France Paris (11 055,5 thousand people). The lowest number of population is in the Finnish region Åland (25,9 thousand inhabitants).

Podkarpace Province belongs with its 2 130 thousand inhabitants to the bigger regions of EU. Similarly populated are the Polish Kujawsko-pomorskie Province and two German regions Freiburg (2 164 thousand people) and Hannover (2 164 thousand people), along with the British regions East England (2 177 thousand people) and Gloucestershire, Wiltshire and North Somerset (2 163 thousand people).

Differences between EU regions can also be observed by considering the number of inhabitants per 1 square km.

The biggest numbers of people per 1 square km are in London (8 648 people) and in Brussels (6 019 people).

The lowest population density is in the overseas territory of EU, namely in the French region of French Guiana (2 people per 1 square km)

In Podkarpacie the population density equals to 119 people per 1 square km. The same population density occurs in three EU regions: Italian – Abruzzo, British – Northern Ireland and Czech – Severovýchod.

The basic factor which shows the level of social and economic development is unemployment rate.

The average unemployment rate in 2002 for 15 EU countries was 8,9 %. The range of unemployment between EU regions is very high and amounts to 28%. The lowest unemployment rate was in 2002 in Bolzano (1,9%), in Austrian Tirol (2,0%) and Utrecht (2,2%), Zeeland (2,3%), Noord-Brabant and Gelderland (2,4% in each of them) in Holland.

The highest unemployment rate is in following regions: French Reunion (29,3%) and Guadeloupe (26,0%) and Polish provinces: Lubuskie (26,3%), Dolnośląskie (26,1%), Zachodniopomorskie (26,0%) and Warmińsko-mazurskie (25,9%).

The unemployment rate was in 2002 in Podkarpacie 18,2% and consequently it was a region of high unemployment. The similar unemployment rate was in: Wielkopolskie (18,2%), Świętokrzyskie (18,8%) provinces, Sardinia (18,5%), Leipzig (18,8%) and Západné Slovensko (17,5%).

Despite the passage of time the disproportion of development between Polish regions is still visible. The difference in per capita GDP between the region with the highest GDP (Mazowieckie GDP=31 115, in 2000) and region with the lowest GDP (Lubelskie GDP=14300, in 2000) equals to 2,2:1. Even bigger differences of GDP occur within the division into subregion (NUT3). The range between region with the highest GDP (Warsaw – in NUT3 considered as a separate region) and region with the lowest GDP amounts to 5,2:1.

The biggest differences in per capita GDP level are in Great Britain. The range between region with the highest GDP value (Inner London) and region with the lowest value (Cornwall & Isles of Scilly) is 4,4:1. In France there are also big differences in range of GDP. The lowest ones are in Ireland, Holland and Sweden. In Poland the level of interregional per capita GDP difference is similar to that in Spain and Italy.

Tab. 2. The interregional range of per capita GDP in EU

Country	Regions with the highest and the lowest value of per capita GDP	Ratio of the highest value to the lowest value
Poland	Mazowieckie - Lubelskie	2,2:1
Austria	Wien – Burgenland	2,0:1
Belgium	Bruksela – Hainaut	3,1:1
Finnland	Åland - Itä-Suomi	1,9:1
France	Île de France – Guyane	3,4:1
Greece	Sτέρα Ellada - Dytiki Ellada	1,8:1
Spain	Madrid – Extremadura	2,1:1
Holland	Utrecht – Flevoland	1,6:1
Ireland	Southern and Eastern - Border, Midland and Western	1,5:1
Germany	Hamburg – Dessau	2,8:1
Portugal	Lisboa – Acores	1,9:1
Sweden	Stockholm - Norra Mellansverige	1,6:1
Great Britain	Inner London - Cornwall & Isles of Scilly	4,4:1
Italy	Bolzano/Bozen – Calabria	2,3:1
Czech Republic	Praha – Severozápad	2,8:1

Slovakia	Bratislavský - Východné Slovensko	3,0:1
Hungary	Közép-Magyarország - Észak-Magyarország	2,4:1

Source: CEC 2004, own calculation

The comparison of per capita GDP value in all EU regions reveals the big distance which separates the Podkarpacie Province from other „old” UE countries. Assuming the average of per capita GDP achieved by 15 EU countries in 2001 as 100 %, the value of per capita GDP in Podkarpacie region constituted only 29,2% of this average. Only Lubelskie Province (28,6%) kept a record of per capita GDP value lower than Podkarpacie. The other 252 EU regions achieved higher GDP values. What is interesting, the last six regions in that ranking are Polish provinces: Warmińsko-mazurskie (29,6%), Podlaskie (31,0%), Świętokrzyskie (31,2%) and Opolskie (33,2%). On the next positions are Latvia, region NUTS0, NUTS1 and NUTS2 (33,4%), Hungarian region Észak-Magyarország (33,7%) and Slovakian region Východné Slovensko (34,0%). The highest value of GDP was in Inner London (263,4%), Région de Bruxelles-Capitale (217,3%) and Grand-Duché (194,0%).

Tab. 3. Regions with high and low level of per capita GDP

Regions with high level of per capita GDP	GDP 2001 EU15=100 %	Regions with low level of per capita GDP	GDP 2001 EU15=100 %
Inner London	263,4	Lubelskie	28,6
Région de Bruxelles-Capitale	217,3	Podkarpackie	29,2
Grand-Duché (Luxemburg)	194,0	Warmińsko-Mazurskie	29,6
Hamburg	170,7	Podlaskie	31,0
London (metropolitan area)	164,7	Świętokrzyskie	31,2
Île de France	164,6	Opolskie	33,2
Vienna	152,2	Latvia	33,4
Berkshire, Bucks and Oxford shire	149,0	Észak-Magyarország	33,7
Oberbayern	147,9	Východné Slovensko	34,0
Stockholm	144,9	Észak-Alföld	34,2

Source: CEC 2004, own calculation

When we take into account the average per capita GDP in 25 EU countries, the ranking will not change. Only the value of per capita GDP will change. The per capita GDP achieved in Podkarpacie the value of 32,0% of the average for 25 countries. (100 percent = average GDP value for 25 countries). For comparison, the highest level of per capita GDP - Inner London was 289,1% of the average for 25 countries.

An important factor of social and economic development of the region are people working in three sectors – agriculture, service and industry. The average employment rate in agriculture in five EU countries was in 2002 5,4 %. The biggest number of people working in agriculture is in Podkarpacie Province – 30,8 %. Only seven regions in EU are characterized by higher number of employees working in agriculture. Except the three provinces (Lubelskie, Podlaskie and Świętokrzyskie) there were also four Greek provinces - Peloponnisos, Anatoliki Makedonia, Kriti and Dytiki Ellada. The lowest number of employees working in agriculture was in Région de Bruxelles-Capitale (0,1%), Inner London (0,1%), Merseyside (0,2%), West Midlands (0,3%) and Île de France (0,3%).

In Podkarpacie 28,2% people at large work in industry. This value only slightly differs from the average for 25 other countries, which equals to 28,8%. The similar numbers of people working in industry were in following regions: Oost-Vlaanderen (28,2%), German Lüneburg (28, 2%), French Auvergne (28,3%) and Warmińsko-mazurskie (28,1%). The highest number of people working in industry were in two Chech regions: Severovýchod and Střední Morava

(46,3%). Ceuta y Melilla (7,7%), Inner London (11,4%) and Corse (12,2%) are regions with the lowest number of people working in industry.

Regions with the highest number of people working in services are Spanish Ceuta y Melilla (91,5% of people at large), Inner London (88,5%) and Région de Bruxelles-Capitale (86,9%).

The average for 25 countries was 65,8% of employee at large. Podkarpacie is a region with the lowest number of employees working in the third sector. Only 41,1% employees of Podkarpacie work in services. Except Podkarpacie, Spanish Centro (42,3%), Lubelskie Province (42,5%), Świętokrzyskie Province (44,2%) and Greek Anatoliki Makedonia (44,5%) are the regions with the lowest number of people working in services.

Summary

Thanks to its geographical location, the Podkarpacie Province is one of the easternmost regions of EU. Podkarpacie is situated at the eastern border of Poland. After the UE accession, Poland has the longest portion of EU exterior land border. It's length is 1 163 km and more than $\frac{1}{5}$ of it is the eastern border of Podkarpacie Province separating the EU from Ukraine. In this connection, the location places Podkarpacie Province on the EU periphery.

When we compare the individual parameters, we can observe that most of Polish provinces with the lowest development rate Podkarpacie Province included, are located in the eastern part of Poland. The line, which divides Poland into the better and the worse developed parts, is the line of the Vistula river. Division of "old" EU regions concerning the higher and lower development rate is not as easy and obvious any more.

We can undoubtedly distinguish the exact EU center that consists of three provinces – Inner London, Grand-Duché (Luxembourg) and Région de Bruxelles-Capitale. They are characterized by the highest development rate.

The second group of central provinces constitute the following regions: Vienna, Île de France (included Paris), Hamburg, Berkshire, Bucks and Oxford shire, Oberbayern, Stockholm, Utrecht, Noord-Holland, Groningen, Lombardy, Åland, Bremen, North Extern Scotland and Stuttgart.

Podkarpacie Province along with other Polish provinces (except Mazowieckie Province) and Dél-Alföld, Észak-Magyarország, Észak-Alföld, Dél-Dunántúl, Východné Slovensko, Západné Slovensko, Stredné Slovensko and Latvia, Lithuania AND Estonia are numbered among the most peripheral provinces of EU. They have got the lowest development rate.

Amounts of money spent per capita for research and development (expenses B+R) show a small innovative potential of Podkarpacie Province. In 2001 the year-long per capita expenses for research and development equal to 13 euro.

The smallest expenses were spent only in five Polish provinces: Świętokrzyskie (4,1 euro), Lubuskie (4,8 euro), Warmińsko-Mazurskie (9,7 euro), Opolskie (9,9 euro) and Zachodniopomorskie (10,0 euro). The year-long average expenses for B+R for Poland amount to 34,2 euro. For comparison, in 2001 the average per capita expenses for B+R in EU equaled to 395,0 euro. Stockholm (1 641,1 euro), Oberbayern (1 630,9 euro), Braunschweig (1 487,7 euro) and Stuttgart (1 444,1 euro) spent in 2001 the most money for research and development

To sum up, the Podkarpackie Province belongs to the worst developed provinces. It is characterized by very high unemployment rate, very low per capita GDP, very low expenditure for research and development, very high proportion of people working in agriculture and very small proportion of people working in other services.

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