

ALLOCATION OF THE EU FUNDS AND THE DEVELOPMENT LEVEL OF COMMUNES IN RURAL AREAS OF THE MAŁOPOLSKA PROVINCE

Katarzyna Żmija

Cracow University of Economics

Abstract. Due to the specific problems of the rural areas in the Małopolska Province, the measures directed at the support of their multifunctional development are of a particular importance. Such measures are one of the principal aims of the rural areas development policy. This paper is an attempt to determine the direction of the spatial allocation of the funds received in the framework of the selected measures within the Rural Development Program (PROW) in the years 2007–2013, assigned to the support of the multifunctional development of rural areas, taking into account the socio-economic development level of the communes in the rural areas of the Małopolska Province. The results of the study suggest a territorial variations in the funds' absorption and the existence of significant differences in this respect among the studied communes. However, on the level of individual communes, no relationships among the socio-economic development level of a commune and the total value of the subsidies obtained by the beneficiaries in the commune were revealed.

Key words: socio-economic development level, rural areas, absorption of EU funds, Małopolska Province

INTRODUCTION

The times of the socio-economic transformation in Poland were connected with the radical changes in the system's principal conditions accompanying the development of agriculture, in the economy of rural areas and the communities of their inhabitants. In the first years of the transformation, the economic situation of the rural population worsened to the much higher degree than the situation of the urban population, and the country's development in the following years was associated by growing discrepancies in the socio-economic development levels not only among the individual regions of Poland, but also between the rural and urban areas [Żmija 2013]. Studies of the socio-economic develop-

Corresponding author: Katarzyna Żmija, Cracow University of Economics, Rakowicka 27, 31-510 Kraków, Poland, e-mail: zmijak@uek.krakow.pl

© Copyright by Warsaw University of Life Sciences Press, Warsaw 2015

ment level of rural areas reveal their strong regional differentiation. Due to the variations in the sizes and types of communes, their location and the local setting of the development process, values of the socio-economic development level indices also show strong variations within individual provinces, thus studies conducted on the lowest, local level of the country's administrative division are of a significant research value [Stanny 2013, Paluch, Sroka 2013].

In the last over a dozen years, the integration of Poland with the European Union had the greatest impact on the acceleration of the rural areas development rate. It was associated with the institutionalization and the formation of the agricultural policy conditions, and in its framework, of the rural areas development policy and the allocation of significant funds to the realization of its aims [Wilkin 2007]. The current picture of the rural areas development policy and the programs realized within its scope were importantly impacted by the dissemination of the multifunctional rural areas development concept, which is the consequence of the systematic decrease in the importance of the agricultural function in the economy of rural areas. Such a shaping of the rural areas' economy fosters positive changes in the socio-economic structure of the population and in the scope of the economic efficiency, which is important for the growing attractiveness of rural areas as a place to live and work. Therefore, the principal aim of the EU programs supporting the multifunctional development of rural areas is the support of initiatives promoting the diversification of the rural economy, creating alternative sources of income and new workplaces in rural areas [Żmija 2014].

Many conditions influence the process of absorption of the EU funds allocated to the support of the multifunctional rural areas development. Due to their nature, a classification can be made, dividing them into such two categories as external conditions, independent of the beneficiary (e.g. various conditions of a historical, political, legal, economic, social or institutional nature) and conditions which are internal in the relation to the entity applying for funds, which are directly dependent on the beneficiary, his creativity and entrepreneurial skills, his available resources, previous experiences etc. [Bielecka 2006]. The consequence of the overlapping of various conditions is the diversification of the funds' absorption by territorial distribution. The question arises whether absorption of EU funds has a form similar to allocation of capital. The affirmative answer to this question would mean in practice that the funds, despite their different aim and nature, are supplied in their majority to the communes with a higher socio-economic development level, and therefore to communes enjoying a more advantageous location resulting from more favorable conditions for the development of entrepreneurship in its broad sense. Therefore, it can be expected that the number of entities competing for the EU support is greater in these communes, and the implemented projects are of a broader scope, which translates into the higher value of the obtained funding, and, in consequence, into an uneven distribution of the support for the multifunctional development of communes in rural areas.

Therefore, the purpose of this paper is to determine the directions of the spatial allocation of EU funds for the support of the multifunctional development of rural areas, taking into consideration the socio-economic development level in the studied communes. The aim of the conducted study was to verify the claim that a higher socio-economic development level of a commune is accompanied by a higher absorption of EU funds by beneficiaries investing in that commune.

MATERIAL AND METHODS

The study covered rural areas of the Małopolska Province due to their specific situation reflected in the highly fragmented structure of their agricultural holdings, agrarian overpopulation, a poor manufacturing specialization, and a poor level of commercial production and work productivity in farming. These specific problems are connected with the situation of agriculture in the region, combined with other problems, typical for rural areas throughout the country, such as the high unemployment, the development level of the technical and social infrastructure which is lower than in urban areas, and the lower quality of the human capital in rural areas, considerably hamper the development of rural areas in the province. Consequently, measures directed at the support of their multifunctional development are of a particular importance.

The study examined selected measures of the Rural Development Program for 2007–2013 (PROW 2007–2013), offering non-reimbursable financial assistance to investment projects carried out by private beneficiaries. Measures were selected which are connected with the diversification of economic activities in rural areas, implemented by the Agency for Restructuring and Modernization of Agriculture (ARMA), i.e. Measure 311 – Diversification into non-agricultural activities, Measure 312 – Establishment and development of microenterprises, and Measure 413 – Local development strategies for operations conforming with the terms of financial assistance in the scope of Measures 311 and 312. The discussed measures, in their primary aim, were devised to provide for the creation of new workplaces and income sources, alternative to agriculture, by stimulating the development of activities in the scope of manufacturing, commerce, tourism, consulting and other services.

For the purpose of this study, a definition of rural areas was adopted from the Rural Development Program for 2007–2013 [Program Rozwoju Obszarów Wiejskich na lata 2007–2013, 2014]. The spatial scope of the study covered 168 urban-rural and rural communes of the Małopolska Province, according to their status at the end of 2011. The time scope of the study covered the years 2007–2012. The source materials were the data of the Agency for Restructuring and Modernization of Agriculture and the Main Statistical Office (GUS).

The study of the directions of the spatial fund allocation considered the diversification of the communes in the aspect of the socio-economic development level, using the synthetic measure of the socio-economic development. Many methods of creating synthetic variables can be found in literature [Krakowiak-Bal 2005]. This paper doesn't contain the methodological issues, stating only that the study was based on the hierarchical typology of the spatial diversification of the rural areas' socio-economic development level, obtained with the use of Z. Hellwig's taxonomic method of development pattern [Hellwig 1968].

The study of the socio-economic development level of communes was of a static nature, and was conducted for 2011, partially supplemented with data for 2010 due to the limited availability of certain features in the commune aggregation. In the case of some variables, the metrics were computed on the basis of the average data for the years 2008–2011, in order to avoid incidental values. No single, universal set of features describing socio-economic development level exists [Heffner 2007]. Adopting the strong

content-related substantiation of variables and the availability of data on the communal level as the criterion of the variables selection, 17 variables illustrating the economic and social aspects of development were eventually adopted. The variables are presented in Table 1.

Table 1. Variables adopted for the socio-economic development level of the communes in the Małopolska Province

No	Variable
1	The registered unemployed as a percentage of the total working age population
2	Average area of an individual agricultural holding over 1 ha of arable land
3	The number of registered economic entities in the REGON system per 1,000 of working age population
4	Number of individuals conducting economic activity per 100 working age population
5	The ratio of private entities providing non-market services to public entities providing such services
6	Average commune budget's own revenue per 1 resident
7	The average value of EU funds for financing EU programs and projects per 1 resident
8	The share of capital expenses in the total budget expenditures of a commune
9	Post-working age population per 100 residents at pre-working age (demographic burden index)
10	Migration attractiveness index for internal migrations
11	Birthrate per 1,000 population
12	Percentage of commune councilors with secondary, post-secondary and university education
13	Average value of expenditures on education, culture and national heritage protection, and healthcare per 1 resident
14	Number of foundations, associations and social organizations per 10,000 residents
15	Average usable floor area of a flat in the housing stock per 1 person (m ²)
16	Average expenditures for welfare benefits and in-kind assistance, and pension contributions per 1 resident
17	Percentage of residents using sewage system

Source: Own study.

As a consequence of the employed research procedure, a synthetic metric was obtained that illustrates the socio-economic development level in the spatial approach, adopting values mainly from the interval [0, 1]; the higher value of m_i value of an object (commune), the higher socio-economic development level it represents. Within the ordered set of objects, a typological classification of similar objects was performed, establishing the following groups:

- Group I (very high development level): $m_i > \bar{m} + S(M)$;
- Group II (high development level): $\bar{m} < m_i \leq \bar{m} + S(M)$;
- Group III (moderate development level): $\bar{m} - S(M) < m_i \leq \bar{m}$;
- Group IV (low development level): $m_i \leq \bar{m} - S(M)$;

where: \bar{m} , $S(M)$ stand for, respectively, the arithmetic mean and the standard deviation of development measure.

In order to verify the claim that a higher socio-economic development level of a commune is accompanied by a greater absorption of EU funds by the beneficiaries investing in the commune, Spearman's rank correlation coefficient was calculated [Kukuła 2003].

Socio-economic development level in the communes of the Małopolska Province

Figure 1 presents the spatial arrangement of the communes of the Małopolska Province according to their socio-economic development level. Studies showed that amongst the 168 rural and urban-rural communes, the majority present a moderate or high socio-economic development level – 67 and 47 respectively. Less numerous are very highly developed communes (30), and the least numerous are communes with a low socio-economic development level (24).

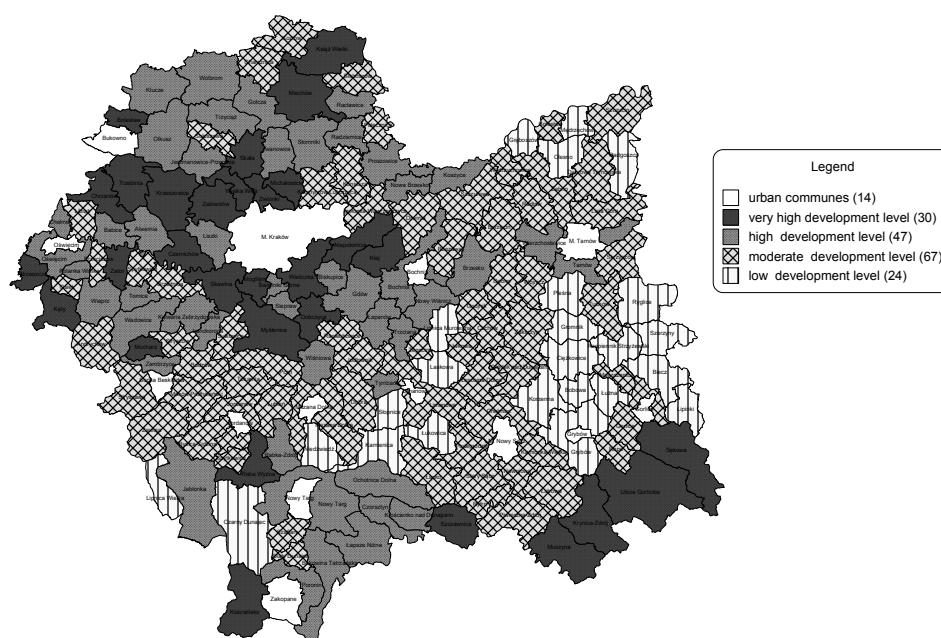


Fig. 1. Socio-economic development level of rural and urban-rural communes in the Małopolska Province

Source: Own study based on GUS data.

The communes of the highest socio-economic development level are mainly in the north-western part of the province and near its southern border. The high development level is clearly promoted by the proximity of Krakow, Upper Silesian urban area, and – to a lesser degree, Bielsko-Biała. Besides the proximity of urban centers, the touristic and spa values of communes are a factor promoting the socio-economic development, as proved by the very high development level of the communes near the southern border of the province.

The communes classified as the ones of a high development level are also mainly located in the north-western and southern part of the province. A small concentration of

such communes lies in the suburban zone of the city of Tarnów. Such communes usually neighbor very highly developed ones. The third group of communes, with a moderate socio-economic development level, is the most numerous one. Such communes are scattered throughout the Małopolska Province, and there are no specific patterns as to their location. Larger concentrations are in the Tarnów, Sucha and Brzesko Powiats. Communes with a low socio-economic development level constitute the least numerous group (24). They are mainly concentrated in the eastern part of the province, in the Tarnów, Gorlice and Dąbrowa powiats, and in the central part, in the Limanowa Powiat.

A very high or high development level is relatively more frequent amongst urban-rural than rural communes, 61% and less than 40% respectively. Urban-rural communes constitute 53.3% of all the very highly developed communes, 27.6% of the highly developed communes, 26.4% of the communes with a moderate development level and only 20% of the communes with a low development level. Therefore, status-dependent differences in the communes' development-related structure are apparent.

Private projects' funding in the scope of the studied measures across individual communes of the Małopolska Province

The analysis of the total value of subsidies granted in the framework of the studied measures allows us to conclude that, as of July 2012, the beneficiaries were allocated subsidies in a total amount of PLN 190.1 million, while the amount of PLN 97.1 million (just over 51% of all the granted subsidies) was actually paid to them. The analysis of data on the commune level revealed that the beneficiaries' actions in the scope of obtaining EU funds for investments connected with starting or developing businesses, and consequently the absorption of EU funds within the examined assistance programs' measures, is territorially diversified (Table 2). Investment projects co-financed from the PROW funds are carried out in nearly all urban-rural and rural communes, with the exception of three of them (Mucharz, Libiąż, Stryszów). The value of all subsidies granted to the communes, in which at least one project has been carried out, varies, from nearly PLN 20,000 in the Zembrzyce commune to nearly PLN 6.2 million in the Gdów commune.

Figure 2 presents the spatial distribution of the total value of the granted subsidies. In all the examined PROW measures, the smallest amount of subsidies was obtained by beneficiaries from the communes in the western, more urban part of the province (Chrzanów, Sucha and Oświęcim Powiats), while the greatest amount – by the beneficiaries from the communes in the western part of the province (Nowy Sącz and Nowy Targ Powiats) and near Krakow (Krakow Powiat). Considering the commune status, it should be noted that the share of the subsidies granted to beneficiaries in urban-rural communes was similar to their percentage in the total number of the province's communes – the beneficiaries from these communes (28.0% of all the communes) were granted 26.3% of all the funds. Nearly 3/4 of the subsidies were therefore granted to projects implemented in rural communes constituting 72% of all communes in the Małopolska Province.

In order to verify the claim that the socio-economic development level of a commune is correlated with the value of subsidies obtained by beneficiaries implementing projects in the commune, Spearman's rank correlation coefficient was calculated, which allows to examine the relationships between the position of a commune in the ranking of the

Table 2. Ranking of communes according to the value of the allocated subsidies in the framework of the studied PROW 2007–2013 measures (selected items)

Commune	The position in the ranking according to the socio-economic development level	Group of the socio-economic development level	Number of signed contracts	Value of granted subsidies (PLN)	Amount of received payments (PLN)
1 Gdów	46	2	30	6 151 172	2 684 596
2 Jabłonka	56	2	35	5 892 457	3 345 184
3 Limanowa	141	3	32	4 543 280	2 087 309
4 Chelmiec	104	3	31	4 042 945	2 339 750
5 Mszana Dolna	112	3	23	3 890 616	1 423 927
6 Łososina Dolna	123	3	33	3 293 713	2 786 048
7 Grybów	163	4	20	3 088 938	1 999 191
8 Wolbrom	47	2	22	2 847 937	1 159 228
9 Proszowice	64	2	27	2 763 832	2 091 594
10 Szczucin	142	3	26	2 675 577	1 411 693
...
159 Wierzchosławice	42	2	2	119 995	19 995
160 Zator	10	1	2	114 781	0
161 Łukowica	167	4	1	100 000	100 000
162 Brzeszcze	20	1	1	99 999	99 999
163 Chelmek	50	2	1	89 464	89 464
164 Stryszawa	120	3	2	62 017	60 671
165 Zembrzyce	71	2	1	19 981	19 981
166 Mucharz	19	1	0	0	0
167 Libiąż	107	3	0	0	0
168 Stryszów	114	3	0	0	0

Source: Own study based on ARMA data and own studies.

socio-economic development level, and the position of the commune in the ranking of the total value of the contracts signed by beneficiaries in the commune in the framework of PROW 2007–2013 measures. The results of the calculations ($r_s = 0.015$) show a lack of a statistically significant correlation between the position in the socio-economic development level ranking and the position in the ranking of the total value of contracts signed by beneficiaries in the commune in the framework of PROW 2007–2013 measures. This means that there is no correlation between the socio-economic development level of a commune and the value of subsidies obtained by beneficiaries for implementation of projects in the commune.

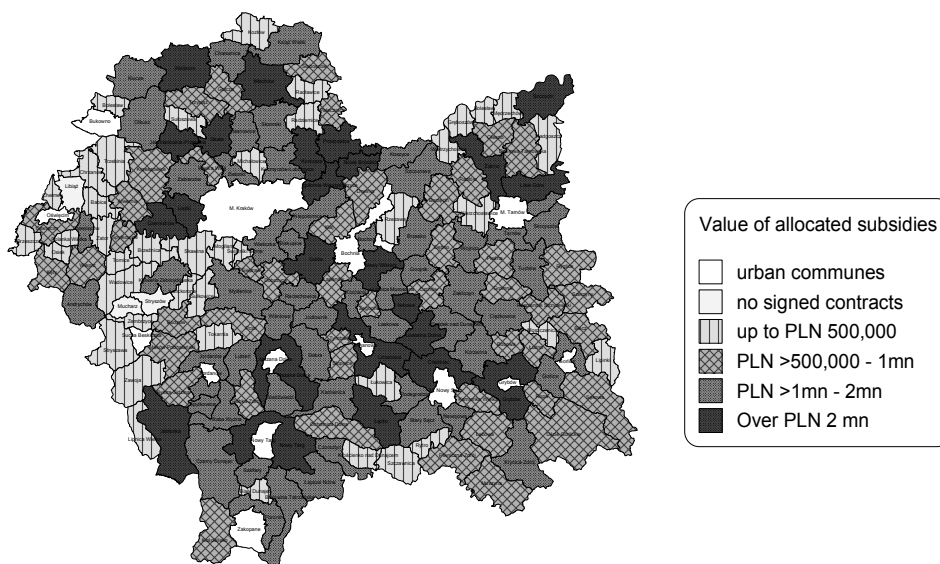


Fig. 2. Value of subsidies awarded in the framework of the examined PROW 2007–2013 measures
Source: Own study based on the data of the Agency for Restructuring and Modernization of Agriculture (ARMA).

For the sake of a more precise examination of the discussed problem, data referring to the utilization of EU funds in the framework of the examined PROW 2007–2013 measures in the four groups of communes were analyzed. The data are presented in Table 3.

The presented data show that the very high socio-economic development level is accompanied by the lowest absorption of funds per one commune and the smallest average of the number of implemented projects in a statistical commune of that type. However, the projects are of a high value of eligible costs, to which relatively high subsidies are allocated, which translates into the third highest total value of the allocated subsidies. The beneficiaries from the communes of a high development level realize relatively the greatest number of projects per commune, which translates into the highest value of the allocated subsidies per a statistical commune of this type. Moreover, the said projects receive subsidies of relatively high individual values, which, combined with a high number of such communes, places them on the second position according to the total amount of the financing obtained by the beneficiaries.

The beneficiaries from the communes of a moderate development level realize, on average, slightly less projects than in the highly developed ones, which translates into the slightly lowest value of the allocated subsidies per commune. The projects implemented by the beneficiaries from this group are allocated subsidies of rather low individual values, however, due to the large number of such communes and the large number of realized projects, the total value of subsidies obtained in such communes is the greatest. In the communes of a low development level, the beneficiaries implement, on average, less projects than in the communes of a high and moderate development level. Moreover, the projects are rather small, with lower funding values, which, combined with their

Table 3. The utilization of EU funds in the framework of the examined PROW 2007–2013 measures according to the group of communes

Group	Number of communes in the group	Number of signed contracts	Total value of awarded subsidies (PLN million)	Average number of projects in a commune	Average value of subsidies per commune (PLN million·commune ⁻¹)	Average value of subsidies per project (PLN thousand·project ⁻¹)
Communes of a very high development level	30	189	26.1	6.3	0.87	137.9
Communes of a high development level	47	470	61.7	10.0	1.3	131.3
Communes of a moderate development level	67	660	80.3	9.9	1.2	121.7
Communes of a low development level	24	175	22.0	7.3	0.92	125.8
All communes	168	1 494	190.1	8.9	1.1	127.2

Source: Own study based on ARMA data.

relatively small number and the small number of communes, translates into the lowest level of funding absorption within PROW in this group of communes. However, the recalculation of the allocated subsidies' value into a statistical commune of a given type does not prove the claim that a higher socio-economic development level of a commune is accompanied by a higher absorption of EU funds by the beneficiaries in that commune, since in a statistical commune of a low development level more funds have been obtained than in a very highly developed commune.

CONCLUSIONS

The EU assistance funds are a considerable funding source for various projects promoting the local and regional development in its broad sense. For that reason, achieving a high level of those funds' utilization became an important challenge both for the local authorities and the residents. The chance to implement development projects with the EU support, promoting the multifunctionality of rural areas, becomes particularly important in the context of solving or mitigating many problems which they are facing.

The examined communes of the Małopolska Province are highly varied in their socio-economic development level. A dual polarization exists in the territorial division of the socio-economic development levels of those communes, across the "center-peripheries" and "east-west" lines. The results of studies confirm the territorial variations in the absorption of the EU funds available in the framework of PROW 2007–2013 for projects promoting the economic diversification of rural areas. Considerable differences in that respect among the studied communes are visible. Only in three of the studied communes no

contracts for funding projects in the framework of PROW measures were signed, which is an optimistic trend. However, very high disparities in the values of allocated subsidies exist on the commune level.

On the level of individual communes, no correlation between the socio-economic development level of a commune and the total value of subsidies obtained by the beneficiaries in the commune in the framework of PROW was revealed. This is also proved by the analysis performed on the level of the four groups of communes. Therefore, we can assume that the decision about applying for EU funds and allocating them is, to a large extent, dependent on the conditions which are not directly related to the socio-economic development level of a commune. However, the high disparities in the amounts of the allocated subsidies in the studied measures among individual communes will mean that the results of the projects implemented with their support will not be evenly promoting positive transformations in all the communes in the rural areas of the Małopolska Province. The low absorption level of the funds in a particular commune should prompt their local authorities to perform a more detailed analysis of its reasons and to take actions directed at the support of the commune residents' active involvement in the scope of applying for EU funds.

REFERENCES

- Bielecka, D. (2006). Ocena organizacji systemu wdrażania funduszy pomocowych Unii Europejskiej. Czynniki wpływające na wykorzystanie funduszy pomocowych Unii Europejskiej przez gminy. *Samorząd Terytorialny*, 6, 34–56.
- Heffner, K. (2007). Rozwój społeczno-gospodarczy obszarów wiejskich. Definicje – uwarunkowania – zależności – czynniki – skutki. *Badania zróżnicowania rozwoju obszarów wiejskich* [In:] A. Rosner (Ed.), *Zróżnicowanie poziomu rozwoju społeczno – gospodarczego obszarów wiejskich a zróżnicowanie dynamiki przemian*. IRWiR PAN, Warszawa, 14–25.
- Hellwig, Z. (1968). Zastosowanie metody taksonomicznej do typologicznego podziału krajów ze względu na poziom ich rozwoju oraz zasoby i strukturę wykwalifikowanych kadr. *Przebieg Statystyczny*, 4, 307–327.
- Krakowiak-Bal, A. (2005). Wykorzystanie wybranych miar syntetycznych do budowy miary rozwoju infrastruktury technicznej. *Infrastruktura i Ekologia Terenów Wiejskich*, 3, Polska Akademia Nauk, Oddział w Krakowie, 71–82.
- Kukuła, K. (2003). *Elementy statystyki w zadaniach*. Wydawnictwo Naukowe PWN, Warszawa, 154.
- Pałuch, L., Sroka, W. (2013). Socio-economic and environmental determinants of sustainable development of rural communes in Małopolska province. *Acta Sci. Pol., Oeconomia*, 12 (2), 66.
- Program Rozwoju Obszarów Wiejskich na lata 2007–2013 (PROW 2007–2013). Ministerstwo Rolnictwa i Rozwoju Wsi, Warszawa, wrzesień 2014, 8.
- Stanny, M. (2013). *Przestrzenne zróżnicowanie rozwoju obszarów wiejskich w Polsce*. IRWiR PAN, Warszawa, 120.
- Wilkin, J. (2007). Przemiany na obszarach wiejskich w Polsce w okresie transformacji systemowej i integracji europejskiej. [In:] M. Kłodziński, M. Bład, R. Wilczyński (Eds), *Odnowa wsi w integrującej się Europie*. IRWiR PAN, Warszawa, 37–51.
- Żmija, D. (2013). Unemployment in rural areas in Poland. *Acta Sci. Pol., Oeconomia*, 12 (1), 76.

Żmija, K. (2014). European Union Funds as an Instrument for Social and Economic Activation of Rural Areas in Poland. [In:] R. Borowiecki, M. Dziur (Eds), Third Sector. Theoretical Cracow University of Economics, Cracow, 209.

ALOKACJA ŚRODKÓW UNII EUROPEJSKIEJ A POZIOM ROZWOJU GMIN NA OBSZARACH WIEJSKICH WOJEWÓDZTWA MAŁOPOLSKIEGO

Streszczenie. Specyficzne problemy obszarów wiejskich województwa małopolskiego sprawiają, że szczególnego znaczenia nabierają działania ukierunkowane na wsparcie ich wielofunkcyjnego rozwoju, co jest jednym z zasadniczych celów polityki rozwoju obszarów wiejskich. W artykule podjęto próbę określenia kierunków przestrzennej alokacji dotacji przyznanych w ramach wybranych działań Programu Rozwoju Obszarów Wiejskich na lata 2007–2013, przeznaczonych na wspieranie wielofunkcyjnego rozwoju obszarów wiejskich, uwzględniając poziom rozwoju społeczno-gospodarczego gmin zlokalizowanych na obszarach wiejskich województwa małopolskiego. Wyniki badań wskazują na terytorialne zróżnicowanie absorpcji środków oraz występowanie znacznych różnic w tym względzie między badanymi gminami. Na poziomie poszczególnych gmin nie stwierdzono natomiast zależności między poziomem rozwoju społeczno-gospodarczego gminy a łączną wartością dotacji pozyskanych przez beneficjentów w tej gminie.

Słowa kluczowe: poziom rozwoju społeczno-gospodarczego, obszary wiejskie, absorpcja środków UE, województwo małopolskie

Accepted for print: 09.07.2015

For citation: Żmija K. (2015). Allocation of the EU funds and the development level of communes in rural areas of the Małopolska Province. *Acta Sci. Pol., Oeconomia*, 14 (3), 177–187.