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Changes in the Spatial Distribution of the Level and Dynamics of Socio-Economic Development of Rural Areas in Poland

Abstract: This article shows the characteristics of spatial differentiation of level and dynamics of socio-economic development of rural areas in Poland. The Authors try to define typical directions of the development of gminas and look for an answer to the question: *what, and what gminas' features, determine the direction of development?* The analysis presented in the paper has been based on the data originating from the Rural Development Monitoring Project. The results showed the differentiation of the development level to be a part of very dynamic contemporary reality. Criteria up to this date documented in research and arranging spatial diversity of social and economic phenomena apply specifically to description of the development's level, while dynamics is being arranged by a different criteria. Moreover, the research describes four basic profiles of the dynamics of gminas' development.

Key words: socio-economic development, level of development, development dynamics, gmina, rural areas.

1. Introduction

Changes on a historically unprecedented scale have occurred in rural Poland over the last 25 years, particularly after the accession to the EU. They resulted from the reforms implemented from the beginning of the political transformation; the introduction of free-market policies in agriculture, food industry, and trade; new investments; the opening of the huge EU market to Polish products; the growth

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of agri-food export which led to increased rural incomes and improved living standards. The importance of financial assistance, both to individual farmers (direct payments) and local governments, cannot be overlooked; it resulted in investment on individual and gmina levels, the latter involving projects which benefited farmers and agricultural support businesses which mainly influenced rural areas. These changes came into effect despite the problems of Polish agriculture: relatively low production levels, overstaffing, very slow changes in farm structure, and the existence of underdeveloped areas facing an uncertain future.

The cohesion policy is meant to play a significant role in the development process. Cohesion, defined as the process of reducing disparities between the various regions and the backwardness of least-favored areas, as well as equalizing opportunities, is particularly important in rural areas facing large disparities in socio-economic development levels. Cohesion is the goal – or, in other words, the process leading to positive changes. Numerous financial aid programs designed to support it are available in rural areas. It should be noted that of all EU Member States, Poland is the largest beneficiary of the European Cohesion Policy (CP) for the 2014–2020 budgetary period. However, these programs require co-financing with national payments, which can often present a significant obstacle for local budgets.

Evaluating Cohesion Policy also faces challenges in measuring the results of program implementation in structurally different rural areas. Nevertheless, the present edition of this policy may influence their future to a tremendous degree. Even after 10 years of implementing the Cohesion Policy, Poland has remained among the poorest EU Member States, particularly considering our Eastern regions. The present budget may be our last chance at benefiting from such high levels of EU support.

The implementation of policies applying to countryside requires a reliable diagnosis and ongoing monitoring of socio-economic changes in rural areas. A response to that need has been carried out since 2012 and has taken shape of the project of Rural Development Monitoring – under the Polish name of *Monitoring rozwoju obszarów wiejskich* (MROW)¹, a joined initiative of The European Fund for the Development of Polish Villages Foundation and Polish Academy of Science Institute

¹ This project is financed by the European Fund for the Development of Polish Villages. Main publications concerning the studies: 1) Rosner A., Stanny M., 2014, *Monitoring rozwoju obszarów wiejskich. Etap I. Przestrzenne zróżnicowanie poziomu rozwoju społeczno-gospodarczego obszarów wiejskich w 2010 roku*, [Rural Development Monitoring. Stage I. Spatial differentiation of socio-economic development level of rural areas in 2010], European Fund for the Development of Polish Villages, IRWIR PAN, Warsaw; 2) Rosner A., Stanny M., 2016, *Monitoring rozwoju obszarów wiejskich. Etap II*, [Rural Development Monitoring. Stage II], European Fund for the Development of Polish Villages, IRWIR PAN, Warsaw.

of Rural and Agricultural Development. The principle objectives of the studies are to diagnose current differentiations, analyse the dynamics of changes under way, as well as shed light on differing development scenarios depending on local conditions. The authors draw on their firm belief that rural areas are not only the areas dominated by agriculture, but they are also a highly variable socio-economic environment which is inhabited by approx. 40% of the total population, the majority of which does not have any interest in farming whatsoever.

The specifics of the *Rural Development Monitoring* program (MROW) result from the four main methodological assumptions underlying the study:

- 1) It is conducted in all rural and urban-rural gminas² (2137 gminas of Poland);
- 2) It was planned as a long-term, repetitive research project (2 years ago, after the completion of Stage I of the research (MROW 2014), a report was published. Research for the recently completed Stage II (MROW 2016) was conducted on an identical set of data following the previously assumed methodology);
- 3) Its research methodology specifies 11 components which determine rural development. These components are weighted;
- 4) Multiple factor analysis of the data obtained from numerous sources and institutions³ is expected to allow us to determine the factors influencing gminas development.

The process of socio-economic changes in rural areas is extremely complex. It would be naive to expect them to proceed in the same manner all across the country. That differentiation takes roots in gminas' deep diversity, which has a massive impact on both level and dynamics of the development. Even seemingly similar adjacent/neighbouring municipalities, sharing history, social and agrarian structure etc., differ in terms of the distance to the nearest urban centre, and as a result – the distance and access to the local non-farming labour market. The questions of the rural areas development have been researched by IRWIR PAN since 1990s and have been described in various publications, such as: *Atlas demograficzny i społeczno-zawodowy obszarów wiejskich w Polsce* (1995), Andrzej Rosner (ed. 1999), K. Heffner (2002), Rosner (ed. 2002), K. Heffner and A. Rosner (2005), K. Heffner and A. Rosner (2009), Rosner (2015), Monika Stanny (2009), M. Stanny

² The smallest unit of administrative division of Poland with self-governance. An average size of rural gmina and rural area being a part of rural-urban gmina is approximately 7,000 inhabitants and 150 km² surface area.

³ The data used in the project was obtained from various data sources provided by numerous public institutions, including Central Statistical Office (GUS), Social Insurance Institution (ZUS), Agricultural Social Insurance Fund (KRUS), Central Examination Commission (CKE), Office of Electronic Communications (UKE), Agency for Restructuring and Modernization of Agriculture (ARiMR), the ministries, and Offices of Marshals, as well as original primary data collected from polling commune offices.

and Mirosław Drygas (ed. 2010), Patrycjusz Zarębski (2015 a, b), M. Stanny and Adam Czarnecki (2011), A. Rosner and M. Stanny (2014, 2016), M. Stanny and Wojciech Strzelczyk (2015). Similar research has been conducted also by other research bodies, and described by M. Stanny (2013, pp. 69–79). So far the analysis has concentrated mostly on the measurement of rural areas development level, development of a scale of the measurement and conceptual apparatus. However, it has never dealt with the issues of the dynamics of the socio-economic development, which should be understood as the measurement of the pace of changes in the countryside. In a long-term perspective the existing socio-economic structures will shift in various ways, with various strengths and in various directions. The research described in the article is focused on defining whether any typical ways of development could be proven as existing – chosen by the gminas intentionally or unintentionally. The Authors have also searched for an answer to the question of “what, and what gminas’ features, determine the direction of the development?”.

2. Definition of socio-economic development level

The definition of socio-economic development assumed by this project serves to clarify the concept underlying the study. According to this definition, socio-economic development is the process of transforming rural areas into an resident-friendly environment, i.e one which allows them to fulfill their needs and aspirations, particularly with regard to labor conditions and obtaining satisfactory income; provides them with access to public services and broadly defined cultural goods; ensures a sense of participation in the life of the local gminas; a sense of agency in the ongoing transformation; etc. Meanwhile, a level of socio-economic development describes a degree of transformation of the social and economic environment in the directions specified above; therefore, it describes the present state. Development is a process – a sequence of transformations from one state into another. This meaning of “socio-economic development”, as well as its translation into empirical terms, have been assumed for the purpose of this study; it is not the authors’ intention to introduce new definitions.

According to the research assumptions, observations are conducted in the smallest administrative units – gminas. However, the study does not aim to examine individual units, but to determine development mechanisms and causes of spatial differentiation, and to identify groups of similar gminas. The effectiveness of regional policy and various public policies can be evaluated according to practically implemented development instruments, activities strengthening regional cohesion (EU cohesion policy), which have to be tailored to sets of gminas with similar development conditions.

Another significant advantage lies in the methodology used in the MROW project, including its broad scope of data, multiple factor analysis of socio-economic phenomena, repeatability of studies, and the opportunity to compare their results. It could be said that these characteristics make the MROW project a useful diagnostic tool for rural development policies, providing reliable information about the outcome of past activities and the premises for subsequent decisions. This will also be an important tool for gminas activities, providing them with data useful for evaluating their competitive advantages, comparing their position to other units, and aiding the strategic management process. This is an innovative study of territorial development, which utilizes multiple factor analysis of the dynamics of significant elements of rural area development (defined in the study as development components), not just individual indicators of changes within a single parameter.

MROW studies are conducted according to a procedure specifying 11 components of gminas' development. These components are compiled in the sense of requiring further operationalization, i.e. conversion into empirical indicators and defining their relationships. They are the characteristics of social and economic phenomena which carry the greatest significance for rural areas: spatial accessibility, social and economic situation, and quality of life indicators. Since all these components vary in importance in gminas development, they have been assigned specific weights in order to retain their respective proportions (Figure 1).

The common perception is that rural areas are almost synonymous with agriculture. However, this is not the case anymore. Rural areas are a social and economic environment where agriculture plays a significant role; its importance is constant or even heightened in some ways, but decreased in others. The significance of agriculture is constant with regard to the labour market balance, food security issues, landscape shaping, and preservation of natural environment; it decreases due to its diminishing share in the national economy (GDP production), income generation, employment provision, etc.

It should be emphasized that we appreciate the role of agriculture as a significant economic function in rural areas; however, it is not the sole function of these areas. Moreover, the role of farming as a source of income for rural populations is decreasing; the proportion of rural residents employed in agricultural production is likewise diminishing. The structural problems of agriculture (land fragmentation, low labor efficiency) should be solved outside of it by decreasing employment in this sector. This is one of the basic challenges faced by rural Poland. As the number of non-agricultural jobs is too low at the local scale reducing employment in agriculture becomes very difficult; as a result, structural changes in farming occur at a slow pace. Moreover, traditional family farms – which facilitate survival in periods of overstaffing (hidden unemployment) – are predominant in agriculture

in most of the country. High level of employment in agricultural production results in relatively low income per worker.

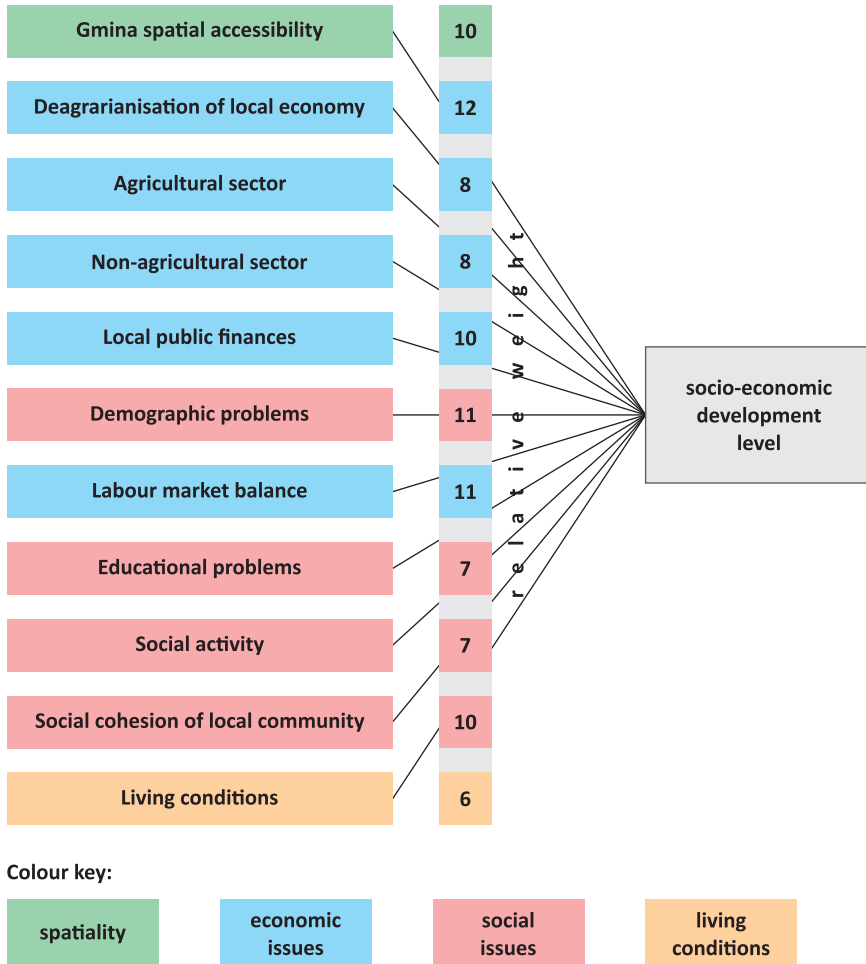


Figure 1. Components of socio-economic development level in the MROW project

Source: own study „Monitoring rozwoju obszarów wiejskich”.

This is why the factors describing the economic situation, including degree of local economy deagrarianisation, were weighted as the most significant in the MROW project. Deagrarianisation is defined as a growing importance of non-agricultural functions in providing income to the inhabitants, i.e. a withdrawal

from the dominance of the agricultural function in the economic structure of rural areas. The need to deagrarianise rural economies lies at the base of the concepts of multifunctional and sustainable rural development. As a component of economic development it is therefore both extremely important and linked to social development. The links are formed by the development of public services and increasing employment in said services, as well as increased possibility of employment matching the inhabitants' aspirations – not just in agriculture and broadly defined agricultural support. This is why deagrarianisation is being treated as a stimulant of development; it creates favourable conditions for structural changes within the agricultural function, particularly with regard to issues related to agricultural overstaffing in family holdings (hidden unemployment).

Far from depreciating the role of agriculture in rural areas, this approach highlights the structural problems which should be solved not only in agriculture itself, but also – or mainly – by engaging its environment. This is why our studies focus on rural areas as a socio-economic environment, and not on agriculture as the dominant economic function in rural areas.

In a similar way, demographic issues are critical component, including an evaluation of the impact of internal migrations (within the country) on rural gminas. The migrants are mainly young, educated, resourceful, and enterprising; as a result, their home regions undergo distinct changes in demographic structures – population ageing and shortages of well-educated community members, especially young, educated women. Low levels of human and social capital in outflow regions cause difficulties in the development of non-agricultural functions and lack of interest in technological and social innovations.

The component of local public finance is interpreted far more broadly than just the budgetary conditions of a given gmina. On the one hand, it indicates the level of budget revenue that the local economy is able to generate, and on the other hand, the actual possibilities for improvement concerning public works: infrastructure development, improved availability of public services, etc. Playing an important indicative role, data about revenue also provides indirect information about the previous levels of economic development, particularly the accumulated wealth from earlier periods – the assets of the gmina (e.g. infrastructure).

Local labour market balance is another complex component. It encompasses phenomena related to agricultural and non-agricultural employment, as well as to shaping labor resource structures responsible for further development of the gmina. Therefore, in addition to the rate of registered unemployment, the study also examined indicators linked to hidden unemployment in agriculture, aging labour force, and labour market attractiveness to migrants.

The remaining components (shown in Figure 1) are significant in measuring the level of socio-economic development, but their impact is relatively differentiated.

3. Differentiation of socio-economic development level

The level of socio-economic development of rural areas aggregated per gmina with a compiled measure was determined in the course of this study. It shows a spatial perspective of the differentiation of rural areas, defining 5 groups of gminas typified by very high, high, average, low, and very low levels of socio-economic development.

The results of the MROW 2014 study (Figure 2) have confirmed two polarised trends in development: 1) differences between regions along the East-West axis (with the boundary falling between the territories of Mazowsze and Wielkopolska), and 2) center-periphery differences in a regional (voivodeship) context.

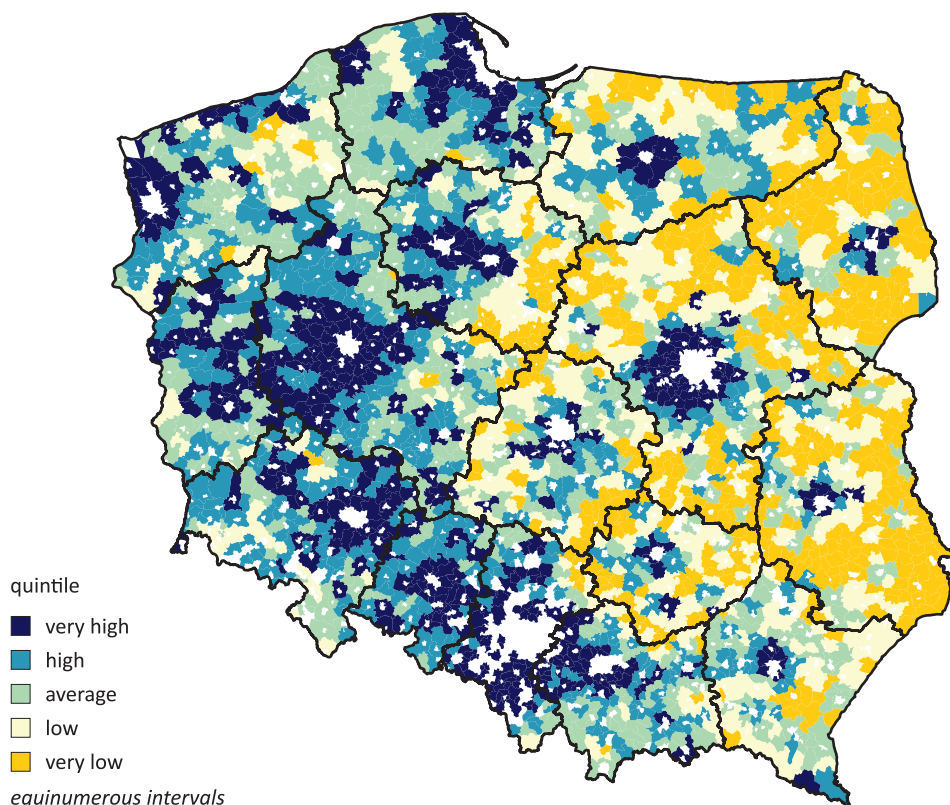


Figure 2. Level of socio-economic development according to MROW 2014

Source: own study „Monitoring rozwoju obszarów wiejskich”.

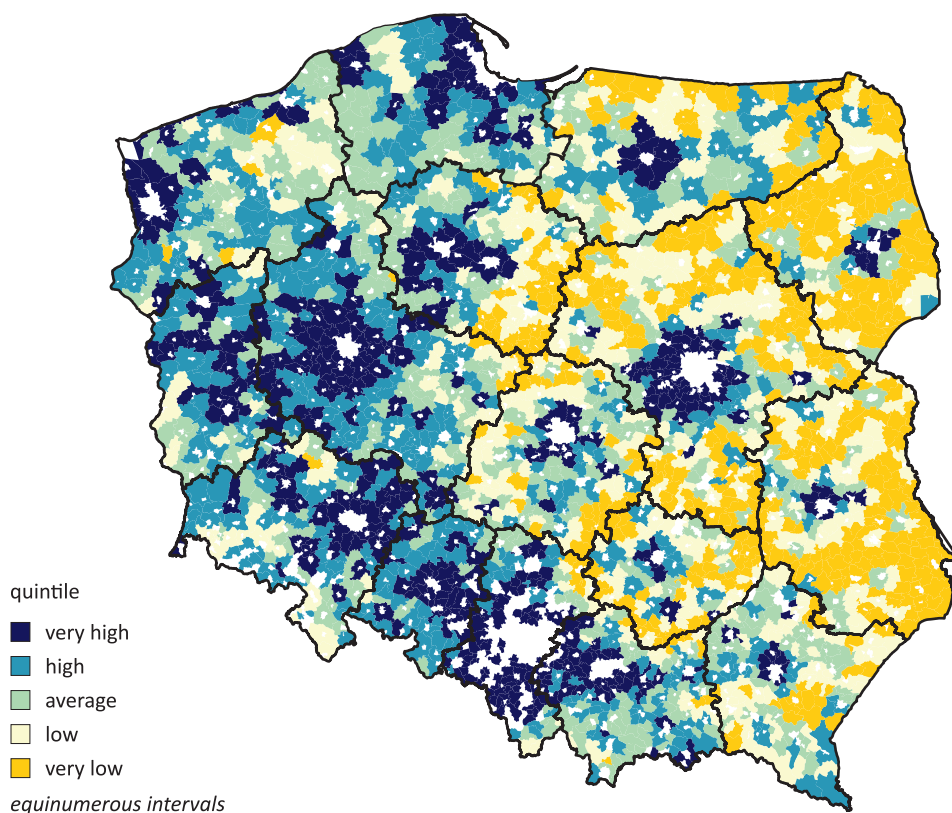


Figure 3. Level of socio-economic development according to MROW 2016

Source: own study „Monitoring rozwoju obszarów wiejskich”.

An analogous procedure of determining socio-economic development level applied in the MROW 2016 study confirms the spatial trends described two years earlier (Figure 3). This indicates the continued importance of the following two factors in the diversification of rural area layouts.

- 1) The historical factor linked to the former partition and interbellum boundaries. The economic structure present in the gminas of Central and Eastern Poland exhibits significant inertia and remains relatively monofunctional in character.
- 2) The factor describing location relative to regional centers. Its influence can be observed throughout the country. Big cities, including Warsaw, Poznań, Wrocław, and Gdańsk, have a particularly broad circle of influence on the neighboring rural areas. It follows the center-periphery axis and is expressed in the division of rural areas into:











- central (suburban) zones – their range depends on the size of the centre, its role in the settlement structure, and its position in the national administrative and economic system,
- peripheral zones – located away from big cities, frequently along voivodeship boundaries,
- intermediate zones – these form a continuum between central and peripheral zones. Their condition is additionally affected by other factors, including the transportation network, presence of forest, river network, tourist appeal, border crossings, etc.

It should be noted that the development level of most gminas remained constant over the course of the study (Table 1). An average of 10% of units rose or fell in the classification. The period between Stages 1 and 2 of the programme is very short (two years), therefore it would be injudicious to expect significant changes to occur in the spatial distribution of the 5 classes of rural socio-economic development. The similarity of distribution on the two maps of development level is actually misleading, as they depict five relatively broad intervals (equinumerous at 434 units each). In fact, the noticeable differences between the maps show only the gminas which moved to another interval while changing their position in the ranking. In a practical sense this means that these gminas lay near the conventional bound of the interval both in the MROW 2014 and MROW 2016 studies. However, the results of the studies are quite significant both for diagnosing the reality and verifying methodological assumptions.

Calculations of socio-economic development level, repeated in Stage II of the study (MROW 2016) following the assumed procedure, confirm the conclusions formulated in Stage I. The main conclusions indicating the diversity of rural areas include:

- the utilization of location advantage relative to big cities and their markets, including the labour market, is strongly beneficial to high levels of socio-economic development of rural areas,
- multifunctional development of rural areas, even ones located far from urban centers, allows them to attain at least an average level of development,
- the dominance of traditional agriculture is a hindering factor in the development of rural areas,
- the presence of multiple incomes in an agricultural holding may – but does not have to – be linked to limiting the agricultural function. Replacement of agriculture by economic functions facilitating structural transformation (as in Wielkopolska), eradicating agriculture (agglomeration gminas), or preserving its structure (depopulating areas, growing significance of non-wage income) may be linked to success or failure in increasing socio-economic development.

Table 1. Percentage distribution of gminas per development level interval in the MROW 2014 and MROW 2016 studies

Year and level interval			MROW 2016					Total
								
			very low	low	average	high	very high	
MROW 2014	very low		89	11	.	.	.	100
	low		11	79	10	.	.	100
	average		.	11	77	12	.	100
	high		.	.	11	82	7	100
	very high		.	.	.	7	93	100
Total			100	100	100	100	100	x

Source: own study „Monitoring rozwoju obszarów wiejskich”.

4. The dynamics of socio-economic development

It was assumed that the positions of gminas in an “ordered series” would shift. A gmina developing faster than average would move “up” in the ranking, one developing slower than average would move “down”. Naturally, this is a simplified perspective, but for the purposes of this article we will not delve deeper into the nuances of statistical measurement (a more detailed explanation is presented in the MROW 2016 Report; see Chapter III (Rosner, Stanny 2016)). In practice some gminas almost always move upward, improving their relative position, while others move downward, losing it. This allows us to analyse the percentage of units shifting between intervals.

As the studies are conducted in two-year intervals, the Authors were concerned that any changes in gminas position on the scale of socio-economic development would be very small and, therefore, difficult to document. These concerns were proven wrong. The results of the analysis have shown that differences in socio-economic development levels of rural areas are an element of the dynamic reality of our times.

A more detailed analysis is enabled by a map (Figure 4) which shows differences between positions of different gminas. It turns out that although the correlation between positions in 2010 and 2012 is very high, the positions of many gminas changed – both improved and worsened. Therefore the map shows a more generalized distribution, while displaying changes greater than ± 50 ranks (threshold

determined according to the assumed algorithm; the method is described in more detail in Chapter III of the MROW 2016 (Rosner, Stanny 2016)). The set of gminas improving their position was additionally divided into two subsets: above average dynamics and dynamic development. In a similar way, the set of gminas losing their relative position was subdivided into below average dynamics and relatively slow development.

One could ask *what are the characteristics of gminas developing at an above-average pace and of those developing relatively slow (below average). Does this depend on their location, economic structure, social structure, agrarian structure, or some other factors?*

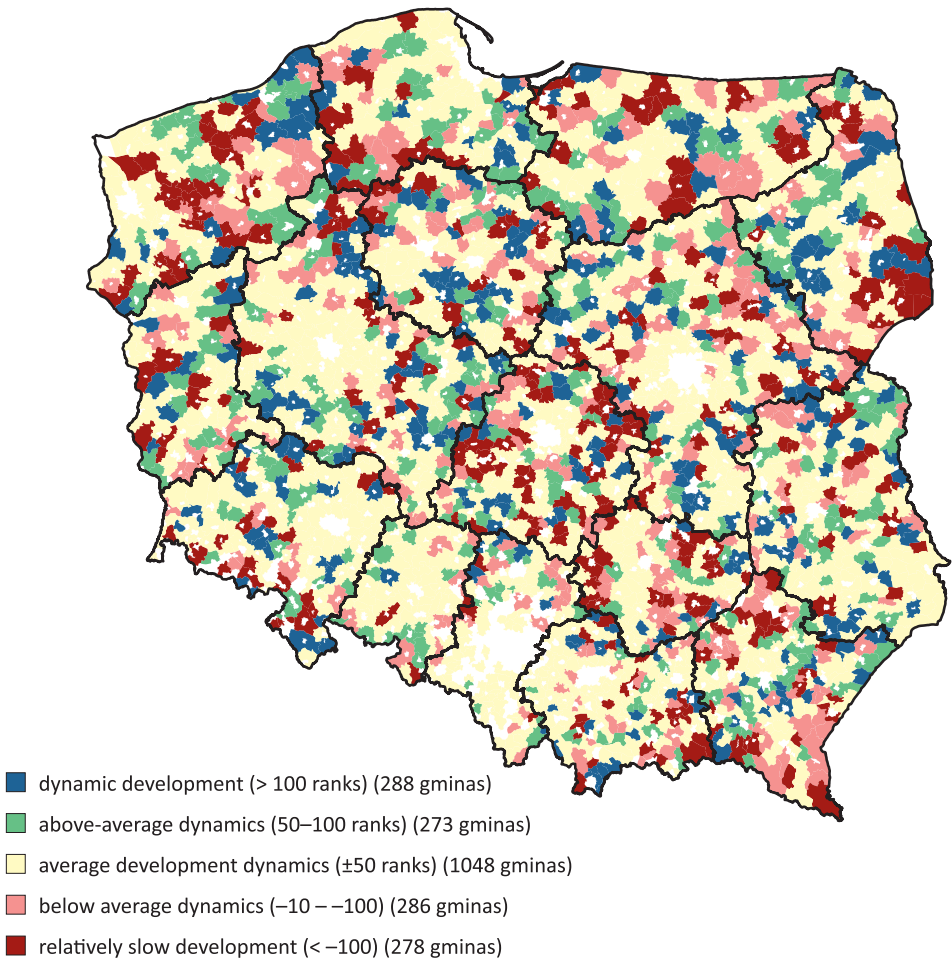


Figure 4. Changes in gminas position on the socio-economic development scale

Source: own study „Monitoring rozwoju obszarów wiejskich”.

At this stage of the study, following the analysis of results presented in MROW 2014 and MROW 2016, the following patterns can be observed:

- 1) No change in the relative positions of most gminas located in the neighborhood of the biggest urban centers, like Warsaw, Krakow, Poznań, Wrocław, Bydgoszcz, or Gdańsk – those that have developed distinct and powerful ties to their rural surroundings.
- 2) Along regional boundaries, relatively weakly developing gminas are often interspersed with ones developing at above-average rates.
- 3) Though peripheral location is very frequently linked to relatively low development levels, it does not necessarily cause low development dynamics. However, growing variance of peripheral gmina development levels may be expected due to varying activity levels of local authorities – some of them are capable of taking the opportunities provided by EU funding, while others find it difficult to obtain (and sometimes to utilize) extra-budgetary investment resources.

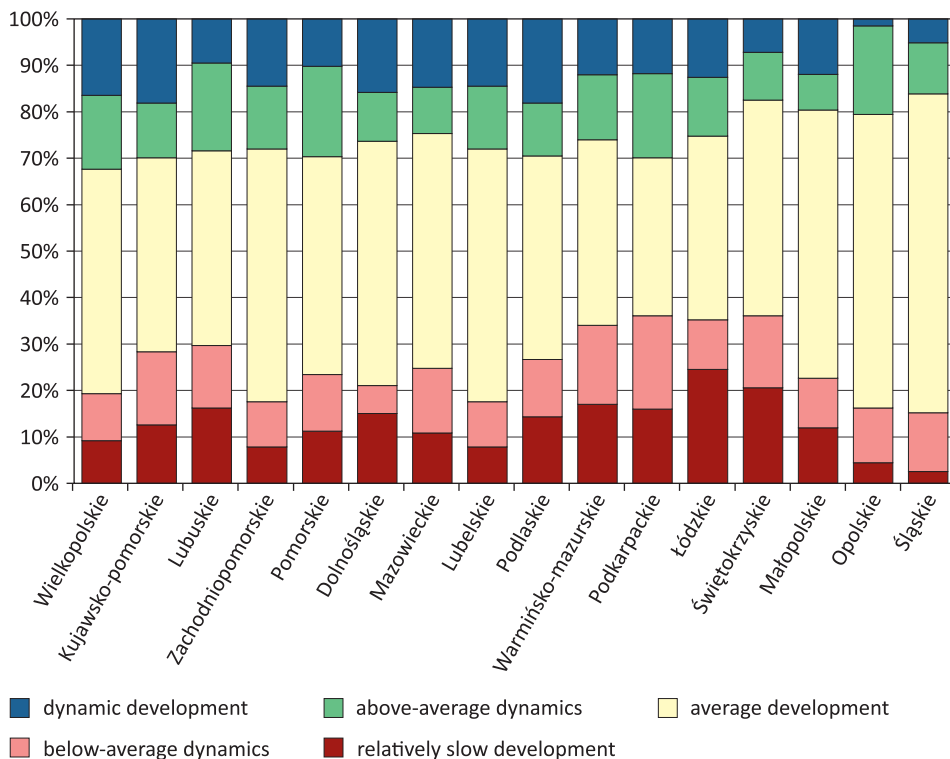


Figure 5. Structure of gminas according to the pace of socio-economic development in voivodeships

Source: own study „Monitoring rozwoju obszarów wiejskich”.

The structure of gminas according to the pace of socio-economic development over the course of the study, as seen in Figure 5, shows that each voivodeship contains gminas that have improved their relative standing on the scale of socio-economic development level and the ones that have lost their position. The largest percentage of dynamically developing gminas occurs in the Kujawsko-pomorskie and Wielkopolskie voivodeships. The Łódzkie and Świętokrzyskie voivodeships lie on the other extreme with the largest percentage of slowly developing gminas. The lowest percentage of gminas exhibiting average dynamics occurs in the voivodeships supported by the Operational Programme Eastern Poland (UE), particularly in the Podkarpackie, Warmińsko-Mazurskie, and Podlaskie voivodeships (nearly 1/3 of gminas are developing above average, while equally many develop at a below-average pace).

5. Profiles of development dynamics

Socio-economic development in a local system may follow in different ways. These are usually linked to the specifics of local conditions, which means that there is no single path of development that all gminas must follow. This gives rise to numerous questions; we have attempted to answer several of them over the course of this project. The following two seemed particularly interesting:

- are there any typical paths (profiles) of development preferred by gminas,
- what aspects of a gmina influence its development profile?

Gminas were grouped into sets exhibiting similar development dynamics according to statistical procedure⁴. Our method enabled us to determine four different profiles of rural development dynamics in Poland. These may be interpreted as follows:

- Profile 1 (encompasses 28% of gminas with 26% of inhabitants) – above-average dynamics of socio-economic component development with the exception of social activity and elements of infrastructure;
- Profile 2 (encompasses 27% of gminas with 30% of inhabitants) – relatively low dynamics of changes in the non-agricultural sector; increased spatial accessibility and social activity;
- Profile 3 (encompasses 25% of gminas with 24% of inhabitants) – unbalanced labour market, detrimental demographic changes, improvements in education;
- Profile 4 (encompasses 20% of gminas with 21% of inhabitants) – relatively slow deagrarianisation of local economies accompanied by balancing of

⁴ To enable grouping of gminas in sets of similar units, a multidimensional gravity model based on a deterministic algorithm, suggested by Erwin Diday (1971, p. 19), has been used.

labour markets and improving housing conditions, coupled with low income-generating abilities of gminas.

The results of our analysis are shown on the following map of spatial distribution of gminas according to their profile of socio-economic development dynamics (Figure 6).

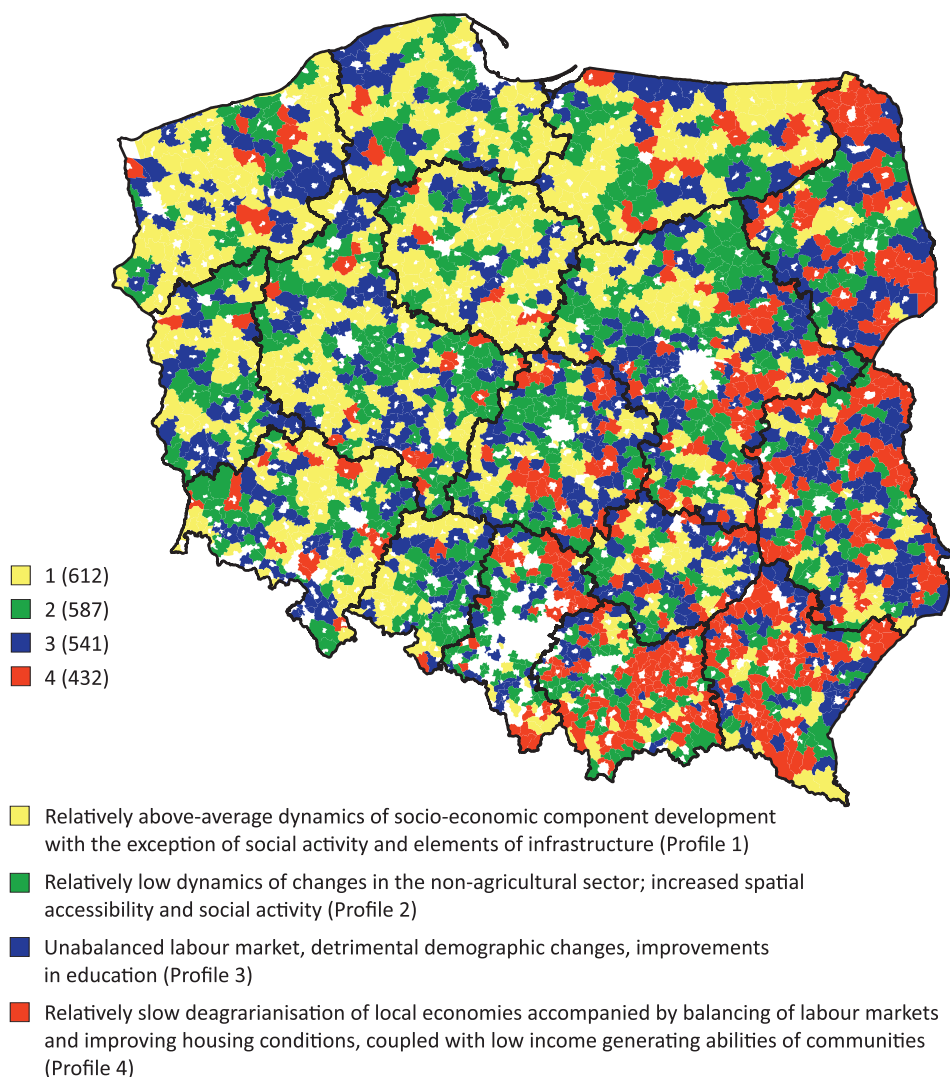


Figure 6. Spatial distribution of gminas according to their profile of socio-economic development dynamics

Source: own study „Monitoring rozwoju obszarów wiejskich”.

The vast majority of gminas classified as developing along the path specified as Profile 4 (red) are located in Eastern Poland, east of the line connecting Suwałki and Opole. Profile 4 gminas seldom occur west of this postulated line, and never in larger clusters. The greatest cluster of these gminas is located in Southeastern Poland, which is an area of highly fragmented multi-income farming, as well as on the “Eastern Wall” – along the eastern border of the country, particularly in its highly depopulating northern parts.

Gminas developing in accordance with Profile 1 (yellow) dominate in North-western Poland, west of the abovementioned Suwałki-Opole line, but they lie outside of suburban areas. These are relatively very uncommon in Southeastern Poland, showing uneven (mosaic) dispersal patterns.

Profiles 2 (green) and 3 (navy) appear throughout the country; there is no clear pattern linking their presence with any particular characteristics of areas. An interpretation of their structural characteristics leads to a conclusion that a multifunctional model of local economy is attractive regardless of previously formed social and economic structures.

The authors have also examined the proportions of these four profiles of development dynamics on the voivodeship level. As a rule, decreasing percentages of Profile 1 gminas in the region are accompanied by growing percentages of Profile 4 gminas. This gives the impression that Profiles 1 and 4 form mutually competitive directions of local system development. The voivodeships of Western Poland are highest in the ranking, while those of Eastern Poland are lowest (Figure 7).

Color key: Profile 1 – relatively above-average dynamics of socio-economic component development with the exception of social activity and elements of infrastructure; Profile 2 – relatively low dynamics of changes in the non-agricultural sector; increased spatial accessibility and social activity; Profile 3 – unbalanced labour market, detrimental demographic changes, improvements in education; Profile 4 – relatively slow deagrarianisation of local economies accompanied by balancing of labour markets and improving housing conditions, coupled with low income-generating abilities of gminas.

Though data for this analysis was only obtained from two studies – MROW 2014 and MROW 2016 – the analytical methods and the research findings allow us to recognize and document the changes in spite of those limitations. However, a further question remains unanswered: *to what extent do profiles of development dynamics indicate the gminas specializing in line with their resources and structure, and do they aid the reduction of local inequalities?*

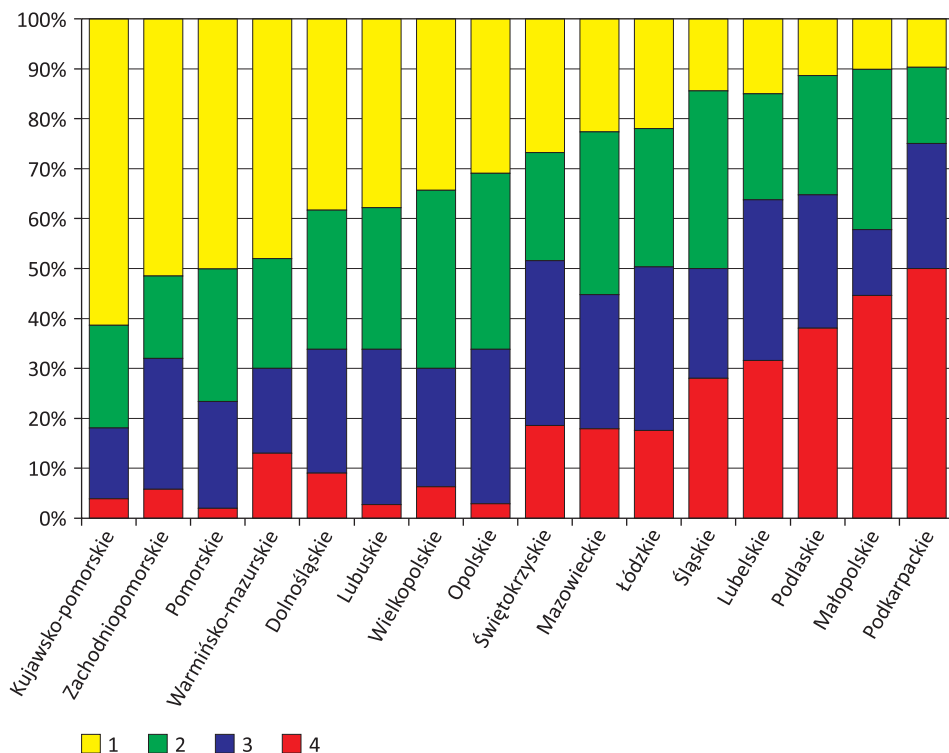


Figure 7. Profiles of development dynamics for voivodeship

Source: own study „Monitoring rozwoju obszarów wiejskich”.

6. Key conclusions

Earlier studies have documented two criteria of ordering the spatial distribution of social and economic phenomena. Research shows that the center-periphery criterion, along with the division between Eastern and Western Poland, have a special significance in describing development levels, while they are significantly less noticeable in the analysis of the dynamics of social and economic changes. The latter is ordered according to another criterion, shown in many variables and less visible in the compiled measure of development dynamics. This ordering follows the line dividing Poland into two parts: Southeastern and Northwestern, approximately along the line between Suwałki and Opole. However, the existence of this boundary needs to be confirmed by further research.

Gminas are adapting to the conditions arising from deagrarianisation and socio-economic development processes, accompanied by the decreasing role of

agriculture in providing income, in numerous ways – possibly as numerous as the gminas themselves. Research has shown that these adaptations can be grouped into four basic profiles of development dynamics. Two of them occur with the same frequency throughout the country, while of the remaining two one is typical of Northwestern Poland, and the other – of Southeastern Poland.

Bibliography

- Atlas demograficzny i społeczno-zawodowy obszarów wiejskich w Polsce.* (1995). I. Frenkel, A. Rosner (ed.). Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN i Polskie Towarzystwo Demograficzne.
- Diday E. (1971). Une nouvelle méthode en classification automatique et reconnaissance des formes la méthode des nuées dynamiques. *Revue de Statistique Appliquée*, 19 (2).
- Heffner K. (2002). Czynniki osadnicze wpływające na potencjał rozwojowy obszarów wiejskich. *Wies i Rolnictwo*, 2, 27–48.
- Heffner K., Rosner A. (2005). *Spatial Variations in Economic Development of Rural Areas in Poland, Rural Development in the Enlarged European Union*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.
- Heffner K., Rosner A. (2009). Disparities in Socio-Economic Development of Rural Areas vis-a-vis Transformation Dynamics in the Pre-Accession Period. In: A. Rosner (ed.). *Globalization and Rural Development: Chinese and Central European Perspectives*. Warsaw: Rural Development Institute Chinese Academy of Sciences in Beijing, Instytut Rozwoju Wsi i Rolnictwa PAN.
- Rosner A. (2015). Problem pomiaru poziomu rozwoju społeczno-gospodarczego. Skala pomiarowa i jej właściwości. *Wies i Rolnictwo*, 4 (169), 11–31.
- Rosner A. (red.) (1999). *Typologia wiejskich obszarów problemowych*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.
- Rosner A. (red.) (2002). *Wiejskie obszary kumulacji barier rozwojowych*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.
- Rosner A., Stanny M. (2014). *Monitoring rozwoju obszarów wiejskich. Etap I. Przestrzenne zróżnicowanie poziomu rozwoju społeczno-gospodarczego obszarów wiejskich w 2010 roku*. Warsaw: Fundacja Europejski Fundusz Rozwoju Wsi Polskiej, Instytut Rozwoju Wsi i Rolnictwa PAN.
- Rosner A., Stanny M. (2016). *Monitoring rozwoju obszarów wiejskich. Etap II*. Warsaw: Fundacja Europejski Fundusz Rozwoju Wsi Polskiej, Instytut Rozwoju Wsi i Rolnictwa PAN.
- Stanny M. (2009). Zróżnicowanie poziomu rozwoju obszarów wiejskich w Polsce a problem realizacji polityki spójności. *Wies i Rolnictwo*, 4 (145), 246–257.
- Stanny M. (2013). *Przestrzenne zróżnicowanie rozwoju obszarów wiejskich w Polsce*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.
- Stanny M., Czarnecki A. (2011). *Zrównoważony rozwój obszarów wiejskich Zielonych Płuc Polski. Próba analizy empirycznej*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.

- Stanny M., Drygas M. (ed.) (2010). *Przestrzenne, społeczno-ekonomiczne zróżnicowanie obszarów wiejskich w Polsce. Problemy i perspektywy rozwoju*. Warsaw: Instytut Rozwoju Wsi i Rolnictwa PAN.
- Stanny M., Strzelczyk W. (2015). Zróżnicowanie przestrzenne sytuacji dochodowej gmin a rozwój społeczno-gospodarczy obszarów wiejskich w Polsce. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu*, 17 (4), 301–307.
- Zarębski P. (2015a). Identyfikacja czynników rozwoju przedsiębiorstw na obszarach wiejskich w Polsce w ujęciu przestrzennym. *Roczniki Naukowe Stowarzyszenia Ekonomistów Rolnictwa i Agrobiznesu*, 17 (4), 362–368.
- Zarębski P. (2015b). Typy obszarów wiejskich w Polsce ze względu na poziom rozwoju społeczno-gospodarczego i dynamikę przedsiębiorstw. *Więś i Rolnictwo*, 3 (168), 63–77.

Zmiany rozkładu przestrzennego poziomu i dynamiki rozwoju społeczno-gospodarczego obszarów wiejskich w Polsce

Streszczenie: W opracowaniu dokonano charakterystyki przestrzennego zróżnicowania poziomu i dynamiki rozwoju społeczno-gospodarczego obszarów wiejskich w Polsce. Podjęto próbę określenia typowych kierunków rozwoju gminy oraz poszukiwano odpowiedzi na pytanie: od czego, od jakich cech gminy, zależy realizowany kierunek rozwoju? Analiza jest prowadzona na podstawie danych z projektu „Monitoring rozwoju obszarów wiejskich”. Wyniki pokazały, że zróżnicowanie poziomu rozwoju jest fragmentem bardzo dynamicznej obecnie rzeczywistości. Dotychczas udokumentowane w badaniach kryteria porządkujące przestrzenne rozkłady zjawisk społecznych i gospodarczych odnoszą się specyficznie do opisu poziomu rozwoju; dynamika bowiem jest porządkowana przez oddzielne kryterium. Ponadto badania opisują cztery zasadnicze profile dynamiki rozwoju gmin.

Słowa kluczowe: rozwój społeczno-gospodarczy, poziom rozwoju, dynamika rozwoju, gminy, obszary wiejskie.

