



Will only Cities Remain? Case Study of Poland in the Context of Development Dualities


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DOI: <https://doi.org/10.24193/JSSPSI.03.WCCTU>

Received: 13 May 2024

Received in revised form: 8 January 2025

Accepted for publication: 23 January 2025

Available online: 05 May 2026

Keywords: *development dualities, local stakeholder perspectives, local disparities, economic crises, municipalities' future, urban resilience*

ABSTRACT

The dichotomy between urban and rural areas has been researched for many years. Crises and challenges have often exacerbated inequalities and development disparities in recent years. This article addresses the issue of developmental dualism and related concerns of local communities. The article aims to answer the question of whether urban or rural municipalities fear the uncertain future and related crises and whether (and to what extent) these concerns differ between these groups. This case study thematically fits within the discussions of the Core-Periphery theory, focusing on the dimension of unprosperous rural municipalities and prosperous urban municipalities, which represents a striking example of development dualism. Some 21 territorial units from Poland were selected – 10 urban municipalities characterised by favourable conditions (wealthy, active, innovative, centre, accessible space) and 11 rural municipalities defined by unfavourable conditions (poor, passive, imitative, periphery, hard-to-reach space). A survey conducted among 437 local leaders from these municipalities revealed that all eight analysed factors – key negative phenomena related to demographics, social and economic activity, and the effects of the pandemic – were perceived as highly alarming by the respondents in the context of their municipalities' development. The findings also indicate that rural communes expressed greater concern compared to their urban counterparts, with demographic issues emerging as the most significant challenge for both groups. Respondents are least concerned about a decline in both social activity (both groups) and economic activity (urban municipalities), as well as about a reduction in the availability of EU funds (rural municipalities). It can then be concluded that the phenomenon of development dualism will likely intensify in the coming years, which will force local authorities to take action to increase the resilience of municipalities and cities.

1. INTRODUCTION

The dual division of functional-spatial structures into urban areas and rural areas has existed for a long time. This dichotomy is illustrated, among other things, by the definition of the word “urban” in the Oxford Dictionary – urban – “relating to, located or occurring in, or characteristic of, a town or city (...), as

opposed to the countryside” (Oxford English Dictionary, 2024). In the past, the border between the “city” and the “countryside” was very transparent, primarily in the administrative dimension, but also in the spatial, cultural and economic dimensions (Stanny et al., 2016). The rural areas are associated with nature, farm work and its separate folklore (Ligeza and Próchnicki, 2014). The city, in contrast, is a “machine”

(Zipser, 2015), developing industry and services and consuming high culture (Kudłacz, 2017). However, increasingly, with social changes, the development of ICT and increased mobility, the boundaries and differences between urban and rural spaces are blurring, creating a kind of continuum (Stanny et al., 2016; Scott et al., 2007). Nevertheless, studies comparing the different development conditions of urban and rural areas still seem relevant and appropriate (Pateman, 2011). As a result, these differences remain at the heart of scientists, strategists and planners (Beynon et al., 2016), because such research can help to adapt policies better, identify problem areas and even develop health policies (Oguzturk, 2008; Turosz, 2024).

Although the precise boundaries between urban and rural spaces are blurred, internal differences are often exacerbated. On the one hand, along with social changes, new functional and spatial forms are emerging at the border between cities and villages, and on the other hand, disparities and development inequalities may worsen (Mantey, 2020; Skubiak, 2013). Studies show that such inequalities often deteriorate not between urban and rural areas, but between the centre and periphery (Huijsmans et al., 2021; Ligeża and Próchnicki, 2014). For this reason, when addressing the subject of urban-rural relations, it is also necessary to cite concepts such as diversity, development disparities, inequalities, or development imbalances (Fig. 1).

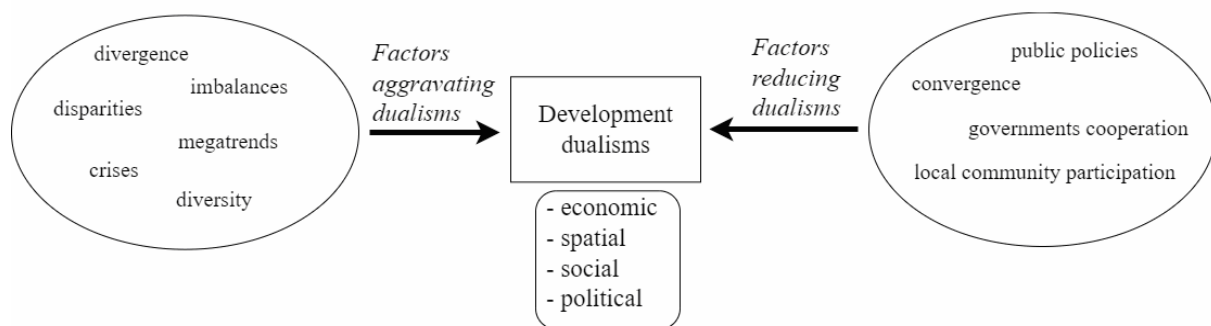


Fig. 1. Factors affecting dualisms.

In various ways, these phenomena affect the dual development of individual territories, creating developmental dualisms between them (Dziemianowicz et al., 2022).

Turning to the core of the matter, this paper addresses dualisation – a negative process characterized by increasing disparities, which creates barriers to harmonious and dynamic development (Dziemianowicz et al., 2022). An outcome of this is dualism, defined as the existence of two opposing realities defined by contrasting conceptual categories (Mantey, 2020). Dualism is a complex and multifaceted phenomenon. It is understood differently across various scientific disciplines (Dziemianowicz et al., 2022). In this article, the issue of dualism and the process of dualisation are conceptualized more broadly than its foundational economic understanding (systemic differentiation between the traditional and modern economic sectors). Dualisation, within a territorial context, is defined as “*the economic development of countries, regions, and smaller territorial systems under radically different conditions, manifesting in distinct development paths for these territories*” (Dziemianowicz et al., 2022, p. 77). In discussing dualisation, key terms include differentiation, polarization, imbalances, disparities, and convergence (Dziemianowicz et al., 2022). More importantly, dualism should not be viewed as the primary explanatory factor for the observed changes and

ongoing development, the latter resulting from numerous processes within the socio-economic system that transcend dualistic frameworks. The concept of dualisation is intended to facilitate the analysis of development paths and the factors influencing development. Therefore, it serves a more illustrative and auxiliary role rather than providing a definitive answer.

Given the diversity described above, it seems appropriate to examine the concerns and identified risks in both prosperous urban municipalities and peripheral (unprosperous) rural municipalities. The coexistence of these contrasting territories highlights a striking example of dualism, evident across social, economic, and spatial dimensions. Therefore, the aim of this article is to answer the question of whether urban municipalities (UM) or rural municipalities (RM) are more concerned about the uncertain future and any related crises, and to what extent these concerns differ between the two groups.

This article thus relies on a case study method thematically aligned with discussions of the Core-Periphery theory (Copus, 2001), focusing on the dimension of unprosperous rural municipalities and prosperous urban municipalities. The article is divided into four chapters. The first chapter describes the theoretical assumptions and purpose of the study. The second chapter presents the process of selecting the examined units and the relationship of the described

issues with other research areas. The third chapter renders the results and discussions generated by respective proposals. Eventually, chapter 4 focuses on drawing the main conclusions.

2. THEORY AND METHODOLOGY

The duality to which attention is given in the following article can occur in many dimensions. Dualisation processes, depending on the conditions, may occur in one or more dimensions (Fig. 2). It may also happen that the same entity in one dimension will

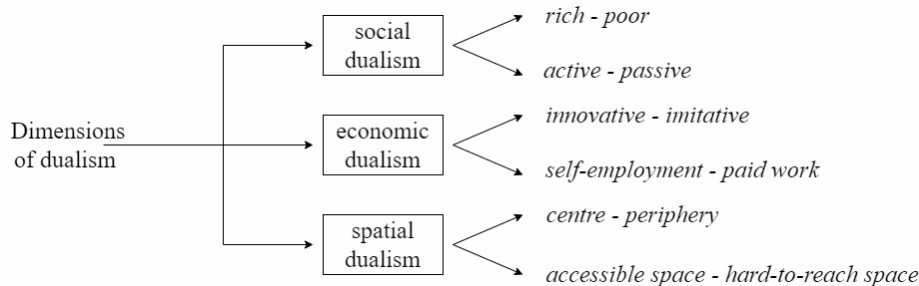


Fig. 2. Dimensions of dualism.

As a result of deepening dualisation processes, existing development disparities may be further exacerbated. So, it is worth considering what the development realities of such areas may look like without proper action. Without the intervention of local authorities, it is possible that a process of depopulation of rural areas and marginalisation of territories farther from the growth poles can occur even faster than the projected changes. As a result, there may be an even greater polarisation of local communities (Mantey, 2020). It has also been pointed out that this state of affairs may lead to the disappearance of the urban-rural relationship in favour of a new division - metropolitan and non-metropolitan (Skubiak, 2013). This, in turn, can lead to the eventual disappearance of villages over the long term, resulting in a situation where only developed metropolitan areas remain in the functional and spatial structure, due to insufficient resilience and a prolonged process of resource absorption (Giannakis and Bruggeman, 2019; Stanny et al., 2016).

When dealing with dualisms on the city-country line, it is also worth referring to the contemporary understanding of the “centre-periphery” theory. Although over the last decades, this theory has been tackled from many perspectives (including neoclassical, Marxist or populist), it is now seen more comprehensively than before (Ferrão and Lopes, 2004). On the other hand, however, due to its popularity and versatility, it is too often indiscriminately evoked, which has long blurred its core (Drago et al., 2023; Kwarcínska, 2017). The use of the centre-periphery theory, understood in this context at the local level (Zarycki, 2007), can help determine the relations between the studied urban and rural municipalities.

show positive factors of dualisation (e.g. wealth, innovation), while in the other it will be characterised by a negative factor (e.g. passivity, peripherality). Uncontrolled and strengthened dualisation processes can significantly affect the development of individual municipalities and, thus, the cohesion of regions and countries. For this reason, the following chapter focuses on theoretical issues in two ways – the potential effects of dualisation processes are described, as well as the issue of drivers of dualisation and related theories, within a broader context.

Ideally, both types of areas should function in a complementary manner, strengthening each other’s development potential (Kwarcínska, 2023). Often, this is not the case. However, peripheral resources are being backwashed, and the position of the centre is being strengthened. Interestingly, however, growing disparities are often unrelated to technological and spatial dimensions (where disparities are increasingly reduced and blurred thanks to progress) (Shefer, 2011). While it is relatively easy to develop infrastructure or other material elements in the diffusion of development, the social and cultural spheres become the most significant challenges (Huijsmans et al., 2021). For this reason, qualitative research on the concerns and aspirations of local leaders of opposing individuals seems particularly justified.

In order to examine the concerns and fears of locals and stakeholders, one should not forget about external factors. To a large extent, they shape realities through the perspective of which the future of their city or commune is perceived. A significant group of such factors is rendered by megatrends. Urban centres have faced a growing number of challenges and megatrends in recent years (Churski et al., 2018; Prandecki, 2012), and foresight studies indicate that their number will continue to rise (Dziemianowicz and Jurkiewicz, 2023). It is essential to see the complexity of megatrends’ impact on development – concurrently, if one megatrend can reduce some dualities, another can exacerbate them. The same megatrend can reduce dualities on a local scale and increase them on a global scale (Dziemianowicz et al., 2022). When addressing the issue of trends, the impact of crises should also be noted. In a VUCA world (volatility, uncertainty,

complexity, and ambiguity), crises are and will, unfortunately, be an integral part of development (Mack and Khare, 2016). Recent years are the best example from this point of view – the successive crises (COVID-19 pandemic, economic crisis, war in Ukraine) have led to the popularisation of the term polycrisis (Bendyk et al., 2023). Polycrisis requires decision-makers to change their thinking in development programming – strengthening resilience, identifying threats, and preparedness to respond quickly to change (Długosz, 2023). It can be noted, therefore, that recent years and related events and changes have not spared local governments and their local authorities. Local governments faced financial, social and institutional problems (Swianiewicz and Łukomska, 2020; Raczkowska and Guziel, 2018). The most vulnerable were often small towns and municipalities with less resilience than larger centres (Bogdański, 2017). For this reason, it seems appropriate to study and identify their biggest concerns about the development challenges of rural and urban municipalities. Identifying critical development problems can be crucial when creating new development support instruments at local, regional and national levels.

To fully understand the issue of developmental dualisms along the urban-rural axis in Poland, it is essential to consider the regional context. Although Poland does not exhibit as stark a dual nature as Germany or Italy (Pastuszka, 2019), it is nonetheless characterized by significant disparities and developmental imbalances. Some of these disparities stem from historical factors. From the 18th to the 20th century (1795–1918), Poland ceased to exist as an independent state for 123 years. As a result of the Partitions of Poland, the country was divided among Russia, Austria-Hungary, and Prussia, leading to the divergent development of its three partitions. Since these regions were developed according to the policies of their respective occupying powers, the re-establishment of an independent Polish state in 1918 posed a major challenge, and in certain aspects, the effects of the partitions remain visible to this day. In line with the colloquial saying “the partitions are still visible” (*widać zabory*) differences can be observed in infrastructure development (Gorzelać, 2004; Pifczyk, 2018), as well as in attitudes and levels of education (Skorupska, 2023; Herbst and Kaliszewska, 2017).

Another period of deepening dual divisions can be identified in the years following the collapse of communism and the Eastern Bloc. With the introduction of a capitalist system in the 1990s and the subsequent dynamic economic growth, developmental disparities within the country widened (Domański, 2018). In this case, the differences also exhibited a dualistic nature, particularly along the core-periphery and urban-rural axes. These dual disparities are also evident in social and political dimensions. Significant

differences in political preferences and human capital can be observed between the northern and western regions and the southern and eastern regions (Sanecka-Tyczyńska, 2015; Nazarczuk and Cicha-Nazarczuk, 2014). However, the most common view (based on data) is that the western part of Poland has a developmental advantage over the eastern part (Misiak 2022). For these reasons, when reviewing the following sections of this study and the research findings, it is important to consider Poland’s developmental conditions, which are largely shaped by long-term historical processes (Gorzelać, 2004) and have a direct impact on the development of municipalities and regions. From a theoretical perspective, it is also essential to place the survey described in the article into a broader context. To answer the research question, a survey was conducted among representatives of local leaders from different backgrounds (including public administration, science and education, business and NGOs) of the selected Polish municipalities. The survey is part of a more extensive study carried out as part of the project (mentioned on the first page and in acknowledgements) funded by the Narodowe Centrum Nauki (National Science Centre, NCN), which focuses on the following dimensions of dualism: “wealth – poverty”, “activity – passivity”, “innovation – imitation”, “self-employment – wage labour”, “centre – periphery”, “accessible space – space difficult to access”. As part of the project, 36 municipalities with different types of dualism were examined. The selection of units followed these methodological steps:

a). Conducting statistical analyses on the entire population of Polish municipalities (N = 2479) to identify a broad group of outliers, including the top 1% (25 units) and bottom 1% (25 units) in each dimension (type) of dualism, resulting in 300 units. To classify municipalities, the following indicators have been used: 1) own revenue per capita (wealth–poverty dualism); 2) received EU funds per capita and frequency of local and national elections (activity–passivity dualism); 3) number of registered high-tech and low-tech companies relative to the population (innovation–imitation dualism); 4) number of registered sole proprietorships relative to the population and the percentage of the population employed in companies with more than 500 employees (self-employment–wage labour dualism); 5) status as a regional capital and distance to the nearest city with county (*powiat*) rights (centre–periphery); 6) average travel time to the municipality’s centre from a neighbouring unit (accessible space – hard-to-reach space).

b). Administering a survey to local governments to assess responsiveness and willingness to cooperate, leading to the identification of 36 units interested in participating in the study.

For the purposes of the following article, however, the results of the survey were selected for 21

local government units – 10 urban municipalities with positive dualism (“wealthy”, “active”, “innovative”, “centre”, and “accessible”) and 11 rural municipalities with similar negative dualities. Such a sample was designed to enable the examination of differences in the fears and aspirations of the two most extreme groups of subjects. The group of 10 urban municipalities with positive dualisms included Gliwice, Grajewo, Jozefów, Kraków, Krynica Morska, Łęknica, Nowe Miasto Lubawskie, Olsztyn, Rzeszów and Zielona Góra. The group of 11 rural municipalities included Baranów, Dubicze Cerkiewne, Dzikowiec, Koczała, Kraszewice, Lipnica Wielka, Radecznicza, Rajcza, Rudnik, Uście Gorlickie and Włocławek. As it can be easily noted, the surveyed group of 21 municipalities is very diverse. In the group of the surveyed urban units, there are both provincial cities with approximately two hundred thousand inhabitants (e.g. Rzeszów, Olsztyn), as well as small communes with thousands or two thousand inhabitants (e.g. Krynica Morska, Dubicze Cerkiewne). However, this deliberate procedure examines concerns in entities with the most diverse characteristics. More detailed statistics and additional information on the analysed municipalities are provided in Appendix 1. Appendix 2 includes a map illustrating the location of the studied municipalities in Poland, juxtaposed with the regional GDP per capita.

Although the research project focused on many factors of the development of municipalities, this article was limited to eight key negative phenomena in the field of demographics, social and economic activity and the effects of the pandemic. Some 437 answers from respondents representing their municipalities and assessing the impact of these factors on the respective units (during the period 2010-2021) were analysed. The impact was assessed on a 6-degree scale (0 – did not occur, 1 – irrelevant, 2 – minor, 3 – significant, 4 – very significant, 5 – key). Data on the impact of factors were compared with demographic analyses and forecasts (from 1995 to 2040). For this purpose, the data of the Central Statistical Office and the study “Prognoza ludności na lata 2023-2060” (“People Forecast for 2023-2060”) prepared by the GUS (Central Statistical Office) were used. The methodology of the empirical part of the work was based on statistical analysis carried out to compare the two groups. Basic statistical tools have been expanded with parametric (t-student test) as well as non-parametric methods (Mann-Whitney U test, Spearman rho correlation). The analysis was conducted using the PS IMAGO PRO software, whose analytical engine is IBM SPSS Statistics.

3. RESULTS AND DISCUSSION

At the outset of presenting the research findings, it is necessary to clarify the definitions of the terms “urban” and “rural”. It is important to recognize

that these concepts can be understood in entirely different ways depending on the adopted assumptions. The differences in interpretation stem from cultural, legal, and functional factors. There are numerous typologies of urban and rural areas, and the same areas may be classified as cities in one classification system while being considered rural in another. These discrepancies are also evident at the national level – territorial units of the same size and spatial structure may be categorized as cities in one country, while in a neighbouring country, they may function as villages (Duhr et al., 2007).

For these and other reasons, contemporary debates on development programming and the territorialisation of development policies increasingly advocate moving away from the traditional binary division along the urban-rural axis (ESPON, 2004). However, in this study, the dual urban-rural classification was adopted based on the Polish classification of municipalities (*gminy* – the local level of administrative units), which distinguishes between urban (*gmina miejska*), rural (*gmina wiejska*), and mixed urban-rural (*gmina miejsko-wiejska*) municipalities.

For the current research, the authors adopted the definitions of urban and rural areas proposed by the Polish Central Statistical Office (*Główny Urząd Statystyczny*) (GUS, 2025):

UM (urban municipalities – “areas located within the administrative boundaries of cities, including urban municipalities and cities within mixed urban-rural municipalities.”

RM – (rural municipalities) – “areas located outside the administrative boundaries of cities, comprising rural municipalities and the rural parts of mixed urban-rural municipalities.”

Firstly, an analysis of the population situation of the surveyed municipalities was carried out in order to verify the reasonableness of the concerns about depopulation and ageing of the population in the subjects. Observing the analysis results (Fig. 3, Fig. 4), it can be noted that in both groups (UM and RM), population changes are very diverse. Despite this, the RM group experiences more significant population declines. By 2040, in the surveyed UM group, a population decline is expected in 6 cities, with 3 projected to drop below 80% of their 1995 population. In the RM group, 8 (out of 11) municipalities are expected to decline, with as many as 6 expecting a decrease below 80% of their 1995 population. Similar conclusions can be reached by analysing the average values of population changes in the studied groups (Fig. 5). Comparing these data with data for the whole of Poland, it can be stated that the group of cities surveyed according to forecasts will have a significantly better population situation than the rest of the country (the drop below the 1995 value is to occur only around

2035). In turn, a group of rural municipalities (RM) has a significantly worse demographic situation than the rest of the country. In the year 2040, they will have an average of approximately 83% of the 1995 population, while for the whole country it will be approximately 91%. Therefore, it seems that respondents from rural municipalities (RM) should be more concerned about demographic challenges and depopulation.

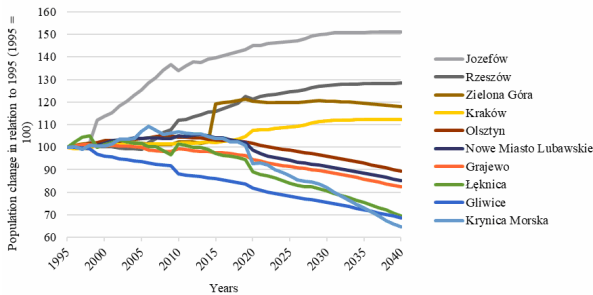


Fig. 3. Change in population in 10 analysed cities, from 1995 to 2040 (forecast) (source: own elaboration based on bdl.stat.gov.pl).

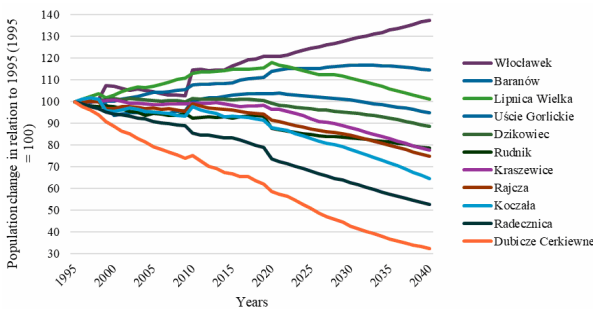


Fig. 4. Change in population in 11 analysed rural municipalities, from 1995 to 2040 (forecast) (source: own elaboration based on bdl.stat.gov.pl).

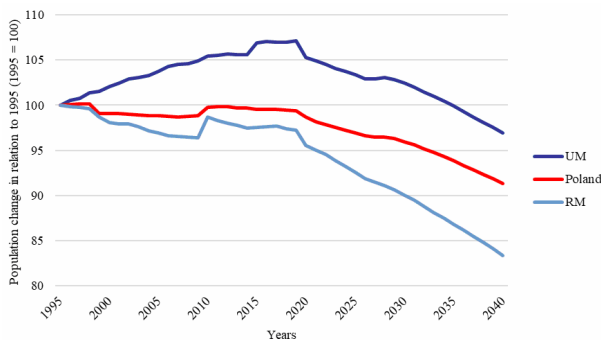


Fig. 5. Change in population in both analysed groups (average) in Poland, from 1995 to 2040 (forecast) (source: own elaboration based on bdl.stat.gov.pl).

Secondly, the results of surveys conducted among local stakeholders and leaders were analysed. The survey showed that the analysed factors were highly worrying to respondents regarding the development of their municipalities (characteristics of the respondents are described in Appendix 4). Notably, significant differences between gender groups are noticeable, as indicated by the Mann-Whitney U test (p

< 0.001): the average assessment is 3.15 for men and 3.35 for women. However, the similar distribution of features in both analysed groups minimises their impact on the overall results. In total, 86% of the assessments indicate that the factor occurred and affected the municipality negatively, with 51% indicating a very significant (24%) or a key (27%) impact (all evaluations of 8 factors were summarised).

There are statistically significant differences between urban and rural communities. Evaluations of the influence of representatives of UM most often amounted to 3 (significant impact), while RM representatives more frequently estimated it as 4 (very significant). Differences are evident in the quartile distribution (Fig. 6), percentages, and average comparisons.

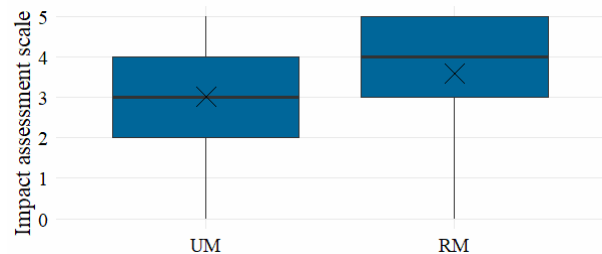


Fig. 6. Distribution of assessments (box plot) of the influence of the analysed factors (sum of responses) on the development of municipalities. Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.

Rural municipalities are more often characterised by assessments indicating the critical (key) impact (35% vs. 21%). In this group, it was also much less likely to indicate the lack of influence or its insignificant (10% vs. 18%) (Fig. 7).

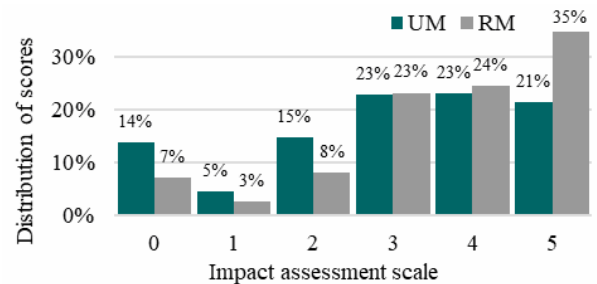


Fig. 7. Percentage distribution of assessments of the impact of the analysed factors (sum of responses) on the development. Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.

Assessments suggesting that the influence of the factors studied was at least significant (rating 3 or higher) were overall 74% (67% in the urban group and 82% in the RM group).

Differences are also noticeable in terms of average values. In the case of UM, the average rating was 3.01, while in the RM group, it was 3.59. The T-Student and Mann-Whitney U tests confirmed the statistical significance of differences between groups.

Vieira (2016) discussed the acceptability of the T-Student test for numerical measurement scales. However, the Mann-Whitney U test was also included in the analysis due to the failure to meet the assumptions of the T-Student test – i.e. normality of distribution and group equivalence. Despite this, the T-Student results were presented due to its robustness, though further analyses were limited to the Mann-Whitney U test) (Table 1).

Table 1. Statistical characteristics of impact evaluations for the analysed factors (sum of responses) on the development of municipalities.

	N	M	SD	t-test		U test
				MD	t	Z
UM	1886	3.01	1.63	-0.582	-11.04**	-10.91**
RM	1540	3.59	1.45			
Total	3426					

**significant at the 0.01 level (2-tailed).

N – sample size (a sum of individual assessments); M – mean; SD – standard deviation; MD – mean difference.

The differentiation of the analysed urban areas (size and rank) requires a review of the validity of the proposed division into groups. However, the different characteristics of the units did not result in different approaches towards the analysed phenomena. Smaller towns rated the phenomena, on average, at 3.05, while larger ones (including cities), at 2.99. No significant differences between these subgroups were found using the Mann-Whitney U test (p=0.34, indicating homogeneity). Descriptions of the influence of individual factors on the development of the studied municipalities are presented in the following subsections.

3.1. Demography

Demographic phenomena are the biggest concern among the studied factors in both groups. The most important issue is ageing, which 86% of respondents (83% in the UM group and 91% in the RM group) assessed as significantly affecting development (rated 3 or higher) (Fig. 8).

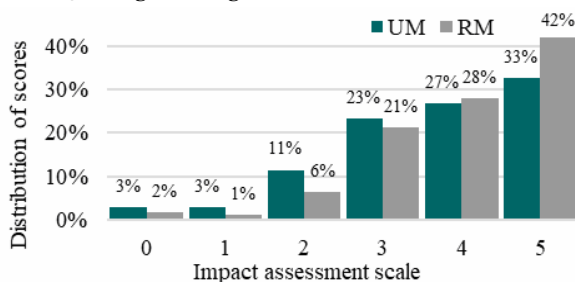


Fig. 8. Percentage distribution of impact assessments of population ageing on the development of municipalities. Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.

Moreover, most respondents point to the key impact of this phenomenon (33% in the urban group and 42% in the RM group). The percentage distribution of evaluations in both groups is similar in this case. However, respondents from the UM group generally assess this factor as having a more substantial impact on development (average rating of 3.99) compared to the RM group (3.66).

Although the assessments of the other two demographic phenomena indicate a slightly smaller impact on development, there are more pronounced disparities between the groups (Fig. 9, Fig. 10).

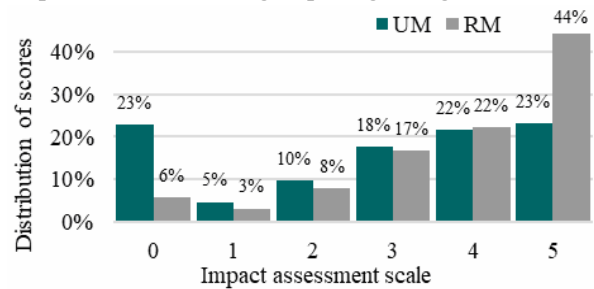


Fig. 9. Percentage distribution of impact assessments of depopulation on the development of municipalities. Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.

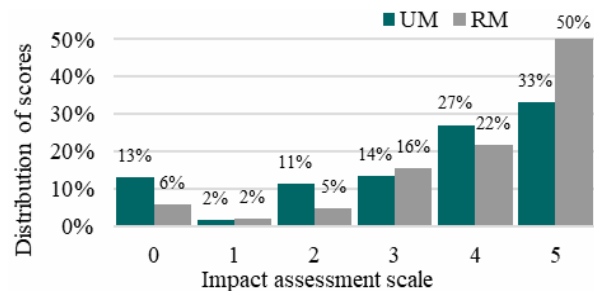


Fig. 10. Percentage distribution of impact assessments of emigration of young people on the development of municipalities. Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.

For depopulation, 63% among UMs and 83% among RMs were significant or greater (evaluation 3 or higher) and 74% and 88% respectively, for young emigration. As in the case of ageing, these factors are also determined by the high share of assessments indicating the criticality of their impact on development (these assessments prevailed in both groups). On average, the impact of depopulation and emigration of young people was assessed at 2.81 and 3.39, respectively, in the UM group, while in the RM group, the average scores were 3.80 and 3.96. Therefore, the differences in understanding demographic risks are consistent with demographic forecasts and seem understandable. The ageing of the population can be equally acute for both urban and rural communities. The situation may be different in the case of depopulation and emigration. In the context generated

by these phenomena, prosperous urban units are in a much better position. They can attract new residents using endogenous potentials (such as quality of life, labour market, etc.). Therefore, it seems that the respondents' concerns in both groups are reasonable and appropriate to the scale of the threat.

3.2. Effects of the COVID-19 pandemic

The effects of the pandemic represent a dimension in which there is minimal polarization between urban and rural municipalities. According to respondents, this factor – second only to demographic factors – is perceived as one of the most significant negative influences on municipal development, with 81% of all responses indicating at least moderate significance (a score of 3 or higher) in both groups. Urban and rural municipalities thus demonstrate similar perceptions regarding the impact of the pandemic. In this case, there are no significant differences in the percentage distribution of ratings (Fig. 11), or in the average values: 3.42 in the UM group and 3.52 in the RM group.

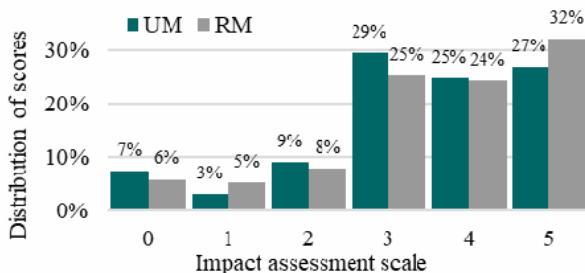


Fig. 11. Percentage distribution of impact assessments of the pandemic on the development of municipalities. *Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.*

3.3. Difficulties in accessing development funds

The decrease in the availability of external resources for development is statistically less concerning for respondents than the factors already described. However, it is difficult to recognise that this factor is associated with slight fear in both groups due to the large disparities between them. Differences are particularly evident when accessing EU funds (Fig. 12), which of the analysed factors differentiates the studied groups.

Evaluations of this factor indicated a significant impact (assessment of 3 or higher) in 52% of the UM group and 83% of the RM group. Differences can also be seen in the averaging of responses; respondents from a UM group assessed the impact at an average of 2.59, and the RM respondents at 3.44.

More than about the availability of funds from the EU, municipalities are concerned about the availability of national funds (mainly due to the greater concerns of

the UM), which is quite surprising given Poland's more than 2-year delay in the implementation of EU funds. Also, in this case, the differences between the groups considered are apparent (although smaller than for EU measures).

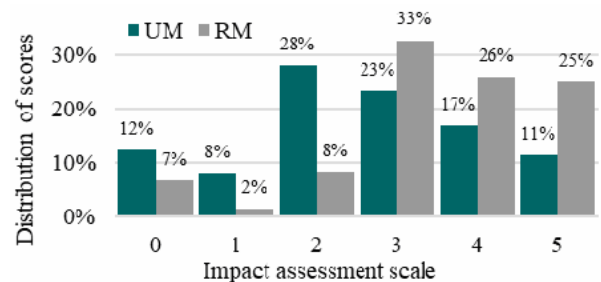


Fig. 12. Percentage distribution of impact assessments of difficulties in accessing EU funds on the development of municipalities. *Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.*

They are most visible in the contribution of assessments indicating the key impact – these answers in the UM group are almost twice as rare (Fig. 13). Again, concerns are more severe in the RM group (average 3.61 compared to the average for UM of 3.09).

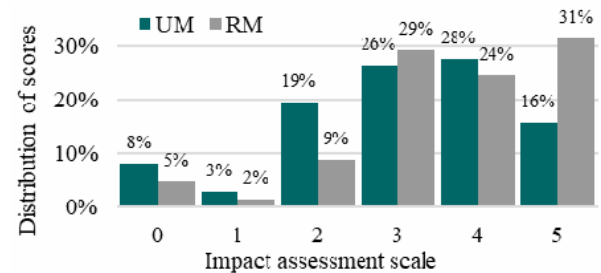


Fig. 13. Percentage distribution of impact assessments of difficulties in accessing national funds on the development of municipalities. *Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.*

3.4. Decline in social and economic activity

The decline in social and economic activity is one of the factors of relatively low concern. Although, to a lesser extent, this relates to the decrease in the number of economic entities (Fig. 14).

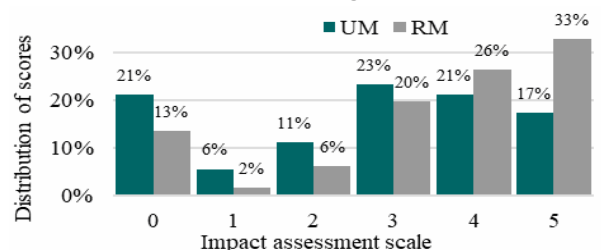


Fig. 14. Percentage distribution of impact assessments of the decrease in the number of economic entities on the development of municipalities. *Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.*

In total, 69% of assessments indicate at least the significance of the impact of this factor, with large

differences between groups (UM – 62%, RM – 79%). The differences in averages are also significant, with the average being 2.7 in the UM group and 3.42 in the RM group. Among the analysed phenomena, the decrease in the number of active social organisations is the least worrisome issue for respondents (Fig. 15).

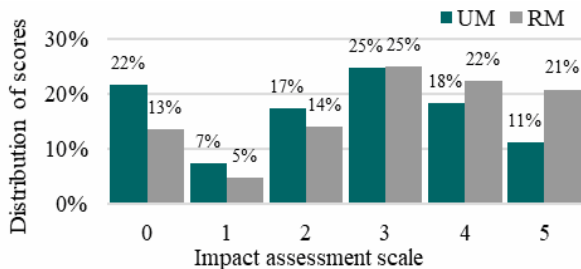


Fig. 15. Percentage distribution of impact assessments of the decrease in the number of active social organisations on the development of municipalities. *Impact assessment scale: 0 – did not occur; 1 – irrelevant; 2 – minor; 3 – significant; 4 – very significant; 5 – key.*

The share of assessments indicating at least a significant impact of this factor on development is 54% in the urban group and 68% in the RM group (with a combined total of 60%). Despite the similar percentage distribution, differences in the share of the lowest (0)

and the highest (5) scores lead to notable differences in the average scores, as is the case with declines in economic activity. Therefore, the UM group average is 2.44, while the RM group average is 3.0. Considering the percentage distributions, assessments of the impact of reductions in economic and social activities are similar. The high level of Spearman’s rho correlation ($r=0.6$ in the UM group and $r=0.7$ in the RM group (correlation significant at the 0.05) confirms that there is a strong linear relationship between these variables.

3.5. Differences in concerns

At the general level (Table 1) and at the level of individual factors (Table 2), there are apparent differences between the study groups. The strongest (based on the Mann-Whitney U test) are observed in declining access to EU funds, depopulation, and a reduction in economic activity. On the other hand, the results for ageing differ slightly. Regarding the effects of the pandemic, the results indicate a degree of homogeneity between the groups, with no statistically significant differences.

Table 2. Statistical analysis of the influence of analysed factors on the development of municipalities.

		N	M	DI ≥ 3 (%)	SD	MD	U-test (Z-value)
Decline in EU funds	UM	236	2.59	52	1.47	-0.85	-6.30**
	RM	193	3.44	83	1.35		
Depopulation	UM	236	2.81	63	1.86	-0.99	-5.69**
	RM	192	3.80	83	1.45		
Economic activity reduction	UM	235	2.70	62	1.76	-0.72	-4.51**
	RM	193	3.42	79	1.66		
Decline in PL funds	UM	236	3.09	69	1.39	-0.52	-4.02**
	RM	192	3.61	85	1.31		
Young people emigration	UM	236	3.39	74	1.68	-0.57	-3.86**
	RM	193	3.96	88	1.40		
Active NGOs reduction	UM	236	2.44	54	1.65	-0.56	-3.56**
	RM	193	3.00	68	1.61		
Ageing	UM	236	3.66	83	1.28	-0.33	-2.68**
	RM	193	3.99	91	1.11		
Pandemic effects	UM	235	3.42	81	1.42	-0.11	-0.96 (N.S.)
	RM	191	3.52	81	1.44		

N – sample size (number of responses), M – mean, DI ≥ 3 – development impact of 3 or more (response share), MD – mean difference, SD – standard deviation. **Correlation significant at the 0.01 level (2-tailed); *Correlation significant at the 0.05 (2-tailed).

Some of the factors are also clearly correlated with each other (the Rho Spearman’s correlation coefficient was used) (Table 3). The strongest dependency is observed between a decrease in access to national and EU funds. In the RM group, concerns about a decline in social and economic activity are

prevalent. Additionally, strong correlations between demographic factors are evident in both groups. Overall, stronger dependencies are observed in the RM group.

Notably, the RM group with a higher overall level of concern is also characterised by a more

pessimistic demographic forecast (the projected average population decline is 17%, compared to a slight projected average decrease in the UM group - 3%). The

analysed rural municipalities are, therefore, not only more afraid of the future but also becoming depopulated.

Table 3. Correlations between the factors studied.

	Ageing		Depopulation		Young people emigration		Pandemic effects		Decline in EU funds		Decline in PL funds		Economic activity reduction		Active NGOs reduction	
	UM	RM	UM	RM	UM	RM	UM	RM	UM	RM	UM	RM	UM	RM	UM	RM
Ageing	--	--														
Depopulation	.563**	.773**	--	--												
Young people emigration	.586**	.706**	.597**	.777**	--	--										
Pandemic effects	.212**	.312**	.189**	.337**	.203**	.363**	--	--								
Decline in EU funds	.216**	.323**	.150*	.430**	.189**	.402**	.1	.250**	--	--						
Decline in PL funds	.127	.398**	.119	.455**	.155*	.409**	.109	.238**	.677**	.858**	--	--				
Economic activity reduction	.404**	.629**	.424**	.701**	.517**	.766**	.226**	.362**	.255**	.384**	.246**	.426**	--	--		
Active NGOs reduction	.439**	.480**	.616**	.562**	.456**	.566**	.182**	.345**	.255**	.401**	.222**	.380**	.553**	.721**	--	--

**Correlation significant at the 0.01 level (2-tailed); *Correlation significant at the 0.05 (2-tailed).

3.6. Discussion

The added value of this study lies in situating the issue of economic dualism within the urban-rural axis in Poland. Additionally, the conducted research on concerns and aspirations within the analysed local government units has provided insights into local government attitudes in times of polycrisis, contributing to new knowledge and further enhancing the study's value. However, the results obtained regarding the opinions of local development leaders should be treated with caution. The dualism study undertaken here does not focus on differences between, for example, economic systems, the studies of which can lead to difficult conclusions (Bourguignon and Morrisson, 1998; Pastuszka, 2019; Spaventa, 2018). The extremely different situations of municipalities within a given country cannot be used to build development models - which was not our goal. However, it is important to pay attention to the differences in development processes and the related expectations of local development stakeholders (Dziemianowicz, 2016). The survey carried out on the example of Polish municipalities showed that, in the context of the last decade's experience, local government units clearly feared the analysed phenomena. UM are most disturbed with regards to population ageing, the effects of the pandemic and the emigration of young people, and least of all, a decline in the activity of social organisations, a decrease in the availability of EU funds and economic activity. The rural municipalities are most afraid of ageing, emigration of young people and depopulation,

and least of all, a decrease in the availability of EU funds, a decline in economic activity and the activity of social organisations (average values were compared). Differences in average ratings for all factors indicate higher concerns in the RM group.

The results of research on, for example, the financial crisis or local governments' concerns about obtaining European funds are confirmed (Dziemianowicz, 2016), as well as the latest problems related to the consequences of the pandemic (Godlewska-Majkowska et al., 2022).

The question in the title of the article - whether only cities will remain - cannot be answered unequivocally for now. It is obvious that groups of cities and groups of rural municipalities are diverse (Sobala-Gwosdz, 2024; Stanny et al., 2016). Although statistical forecasts of the population are not optimistic for the vast majority of municipalities in Poland, there are cities that will lose their population potential, as well as rural municipalities that are increasing their population (usually located near cities, using the suburbanization effect). However, we emphasize the importance of recognizing differences in the perception of development opportunities, which should be carefully considered when designing and implementing development tools and strategies, taking a notice of that we are still drawing conclusions on a selected group of dual municipalities. At the same time, rural municipalities located far from urban centres, classified as negative dimensions of dualisms, are more dependent on external aid than suburban municipalities.

The problem of matching territorial support instruments is still being addressed on a practical level and concerns both regional policy and regional development policies (Churski et al., 2020). Based on the concept of dualisms, one could expect that development policies will aim at better territorial matching, which is declared in subsequent editions of the implementation of, for example, European funds in Poland, but is still in the construction phase. The question also remains open whether, from a political point of view, it is worth tackling the problem of supporting municipalities that will continue to be subject to depopulation, but at the same time constitute a small percentage of the country's population.

4. CONCLUSIONS

In conclusion, developmental dualisms are an important research problem. This is evidenced not only by the rich theoretical and research output, but also by the real problems local governments face. These problems may require additional action and financial outlays from local authorities (Bendyk et al., 2023). In recent years, local governments have experienced various types of crises, and many of them will intensify (Mak and Khare, 2016). The phenomenon of dualism is also expected to grow, as crises and megatrends will have the most negative impact on small, vulnerable communities (Bogdański, 2017).

The survey of Polish municipalities confirmed that, faced with the key challenges forecast, local authorities are strongly concerned with their communes' fate and the processes occurring in their territorial units. Moreover, the strength of these fears polarises them. A group of relatively well-performing urban municipalities (related to the dualisms of wealth, activity, innovation, spatial accessibility or centrality) clearly expresses their concerns less than a group of worse-performing rural municipalities (related to the dualisms of poverty, passivity, imitativeness, limited accessibility or peripherality). This demonstrates a greater potential to deal with crises of well-performing urban areas and greater vulnerability to crises of rural municipalities (especially those facing development problems). Population forecasts also reflect this vulnerability, indicating that surveyed rural municipalities will depopulate much faster than urban units and the rest of the country. Such results coincide with the consensus in the literature that small centres are the most susceptible to harmful external factors (Bogdański, 2017). For this reason, it seems particularly important that small and medium-sized urban centres and rural municipalities should work to strengthen their resilience (Drobniak, 2016; Giannakis and Bruggeman, 2019). In these activities, the significant role of local leaders who can significantly influence the development path of the commune (Dziemianowicz and

Szlachta, 2016) should not be forgotten. It remains, therefore, essential to observe the upcoming changes with the hope that measures will be implemented to reduce the phenomenon of development dualities and strengthen the resilience of municipalities, regions, and countries.

5. ACKNOWLEDGEMENTS

This article is a part of the scientific project "Dualism in Commune Development in Poland in the Context of Policies and Aspirations of Local Communities as well as External Factors – Compared to Selected Communities in the EU", funded by Narodowe Centrum Nauki (NCN; National Science Centre, Poland), grant number DEC-2018/31/B/HS4/0026.

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Will only Cities Remain? Case Study of Poland in the Context of Development Dualities

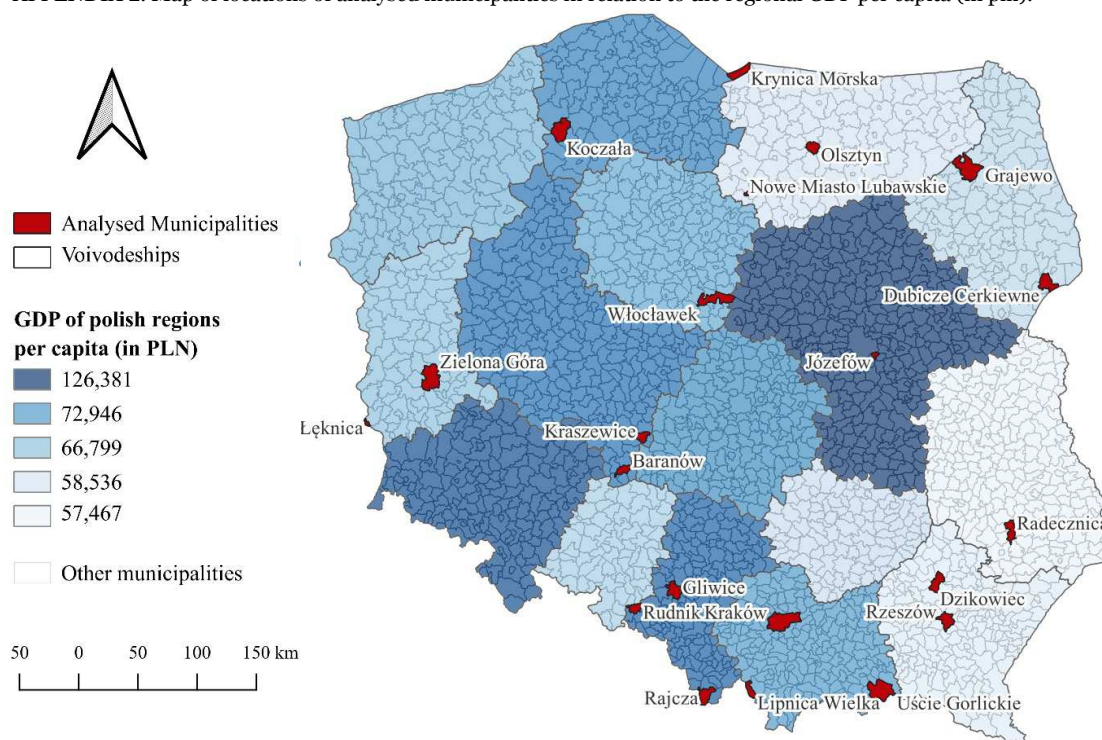
Journal of Settlements and Spatial Planning, Special Issue, (2024) 15-30

What cities can teach us?

APPENDIX 1. Characteristics of analysed municipalities.

Municipality	Type	Voivodeship	Population	Position in hierarchy	Dual character	Municipal own revenue per capita (in PLN)
Baranów	rural	Wielkopolskie	8,261	rural municipality	imitative	6,186.27
Dubicze Cerkiewne	rural	Podlaskie	1,309	rural municipality	imitative	3,369.15
Dzikowiec	rural	Podkarpackie	6,264	rural municipality	poor	1,232.68
Gliwice	urban	Śląskie	169,915	city with county rights	innovative	5,917.71
Grajewo	urban	Podlaskie	5,450	rural municipality	accessible space	3,554.01
Józefów	urban	Mazowieckie	21,217	urban municipality	innovative	5,838.13
Koczała	rural	Pomorskie	3,123	rural municipality	periphery	2,505.33
Kraków	urban	Małopolskie	806,201	region capital	innovative	5,801.14
Kraszewice	rural	Wielkopolskie	3,523	rural municipality	imitative	4,504.6
Krynica Morska	urban	Pomorskie	1,165	rural municipality	wealthy	14,340.06
Lipnica Wielka	rural	Małopolskie	6,053	rural municipality	poor	1,229.55
Łęknica	urban	Lubuskie	2,238	urban municipality	accessible space	4,798
Nowe Miasto Lubawskie	urban	Warmińsko-Mazurskie	10,089	urban municipality	accessible space	2,531.11
Olsztyn	urban	Warmińsko-Mazurskie	167,311	region capital	centre	5,068.41
Radecznica	rural	Lubelskie	5,065	rural municipality	periphery	1,395.21
Rajcza	rural	Śląskie	8,301	rural municipality	periphery	2,333.54
Rudnik	rural	Śląskie	4,804	rural municipality	passive	2,619.26
Rzeszów	urban	Podkarpackie	197,268	region capital	centre	4,580.77
Uście Gorlickie	rural	Małopolskie	6,784	rural municipality	hard-to-reach space	2,470.45
Włocławek	rural	Kujawsko-Pomorskie	7,393	rural municipality	hard-to-reach space	3,376.18
Zielona Góra	urban	Lubuskie	138,932	region capital	centre	5,273.58

APPENDIX 2. Map of locations of analysed municipalities in relation to the regional GDP per capita (in pln).



APPENDIX 3. Characteristics of respondents.

	Sex		Education (higher education rate)	Main area of activity				Professional status				Total no. of respondents
	Women	Men		Administration	Science and education	Business	NGO	Other	Public sector*	Private sector	Other	
RM	125 (65%)	68 (35%)	139 (72%)	73 (38%)	41 (21%)	41 (21%)	27 (14%)	11 (6%)	138 (71%)	54 (28%)	14 (7%)	$\Sigma=196$
UM	141 (59%)	100 (41%)	209 (88%)	79 (33%)	61 (25%)	44 (18%)	28 (12%)	29 (12%)	161 (67%)	54 (23%)	25 (10%)	$\Sigma=241$

The percentage values refer to the respondents out of the total number, who answered the specific questions.

**Also, employees combining work in the public sector with the private sector.*