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Quality of Life Improvement through Social Cohesion

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HOW CAN WE READ OUT LIFE QUALITY ASSESSMENTS FROM THE OFFICIAL SOCIO-ECONOMIC DATA ON POLISH MUNICIPALITIES?

Abstract

In the research on sustainable development at the municipal level in Poland and its indicators, conducted within the project ANAGMIS, one of the themes concerns life quality, as perceived through the municipality-level data. The paper, first, refers to the broadly conceived "economic" and "civilisational" aspects of the statistical description of municipalities. After having shown some of the extreme cases for Poland, we look at the proxy for the subjective evaluation of life quality, directly based on migration and migration balance ("voting with the legs"). This proxy is confronted with other descriptive variables in the first stage of an attempt of building the model of migration-based life quality assessment model. The conclusions from this stage of work, meant to direct the further study, close the paper.

1. Introduction

The present paper reports from the work on the Project ANAGMIS[1], dealing with the evaluation of the sustainability of development of Polish self--governmental units. The project aims at the following objectives: (i) elaboration of the methodology of assessing the level and the dynamics of the sustainability of development of the municipality-level units, (ii) analysis of the municipality-level data to support the methodology proposed; (iii) establishment of the website presenting the evaluation results, meant also to serve as a vehicle for a feedback from the interested parties, first of all officers in the self-governmental authorities.

The present paper belongs to the stream of work on objective (ii). One of the essential aspects of sustainable development, especially when it is broadly conceived, encompassing the environmental, resource-related, social and economic variables, is the (perceived) life quality. This is true in two meanings, equivalent to

[1] ANAGMIS Project: contract with the Ministry of Science and Higher Education No 9008/H03/2006/31, project N11400/31/1404.

directions of reasoning and course of actual processes: higher life quality is the effect of a more sustainable development, in quite "theoretical terms", but also similar indicators may be used to identify the levels of both life quality and sustainability, under definite conditions.

Such generally true, if not trivial, statements, when confronted with the reality of human behaviour, call for a rectification and complementing. Thus, the paper focuses on, first, an assessment of the hypothetical life quality differences in the population of Polish municipality-level units. This assessment is made mainly through a very simple double measure of the "economic" and "civilisational" aspects, characterizing the municipalities. Special emphasis is placed on the extreme values for the two aspects considered.

Then, attention shifts to migration flows, into and out of the municipalities, as the proxy indicator of the actual perception of life quality in particular municipalities. It is considered both in general terms, through the first-glance statistics, and in relation to the two aspects, mentioned before, and especially the extreme cases.

It can be easily concluded that the thus perceived life quality is far less closely, if at all, related to sustainability, understood as in the hypothetical quasi-model, discussed before, or perhaps more generally. The final conclusions of the paper deal with the further work on the model of life quality, as perceived through the migration hypothesis.

2. An assessment of sustainable development

2.1. Selection of variables and indicators

Within the framework of the ANAGMIS project data were used for all municipalities in Poland (around 2,500 units) concerning some 20 variables. The essential theme of the project is the broadly conceived sustainable development of these units. One of the approaches, used to assess sustainability, developed and applied within the project, consisted in the joint use of two measures – the "economic" and the "civilisational" one. Each of them was based on a set of (relative) variables, namely:

"economic indicator":

- investment outlays *per capita* from the municipal budget,
- share in % of the investment outlays in total budgetary expenditures of the municipality,
- share of outlays into transport and communication in expenditures from the budgetary budget,
- number of persons employed outside of agriculture per 1,000 inhabitants,
- number of jobless per 1,000 inhabitants*,
- number of businesses registered per 1,000 inhabitants,

– population inflow per 1,000 inhabitants,
– population outflow per 1,000 inhabitants**.

As can be easily seen, this set of variables ought perhaps better be called "socio-economic". In actual calculations, consisting in simple summing of the values of variables above, the variable marked with one asterisk was taken multiplied by –10, while the one marked with two asterisks was taken as negative.

Now, the **"civilisational indicator"** was composed of the following variables:

– number of publicly available computers with Internet access per 1,000 inhabitants,
– number of graduates of higher than middle secondary schools per 1,000 inhabitants,
– percentage share of persons served by the water supply system,
– percentage share of persons served by the sewage system,
– percentage share of persons served by a wastewater treatment plant.

In the basic version of the analysis, that we shall mostly refer to in further course, the *overall development indicator* was a simple sum of the two above (i.e. of all 13 variables). Further, all the data quoted in the paper, are an illustration for the year 2005. It must be emphasised, though, that this illustration is adequate for representing the phenomena here considered. All the data originate from one, reliable statistical source (the regional database, so-called BDR of the Central Statistical Office, GUS), and are recorded year-to-year, so that they are verifiable. It should be remembered, though, that for many communes the data on computers were until quite recently not available, and that in virtually all the rural communes there are no schools other than primary ones. In addition, employment is registered according to the seat of the company, not the place of residence, nor even of the actual place of work. The fact that the data source used does not account for the employment on family farms is partly "offset" by the low jobless registration in rural areas. Hence, a statistical artefact can arise of having joblessness positively correlated with employment rate.

The selection of variables and of the form of indicators was made on the basis of several criteria, including *relative balance of the values of two indicators*, as illustrated in Table 1. Another important criterion was *simplicity and clarity*, especially important from the point of view of the communication and feedback from the local authorities. That is why a simple scoring system was adopted, with weights equal only to 1, 10, –1 or –10, as mentioned before. Let us also add that much more refined methodologies were tried out, based, e.g., on nonlinear utility functions, as (hypothetically) representing the criteria of sustainability (see, e.g, [4; 5]), or on fuzzy sets and poset theory [8; 9]. Yet, one of the essential conclusions from all these studies was that, despite the obvious shortcomings (e.g. internal balancing of variables) the proposed simple scoring method serves well the purpose of information and communication on sustainable development of the self--governmental units.

On a more general level, let us state that any justified "theoretical indicator" of sustainability would have to refer to a "model of sustainability" which, as we know, does not exist outside of the classical domains of forestry and fishery management. Hence, we are in any case obliged to use *ad hoc* constructs of relatively poorly motivated theoretical foundations, and the "numerical correctness" in the sense, e.g., of using unit-less quantities, is of secondary importance.

Table 1. The economic and civilisational aspect measures across all municipalities in Poland

Aspect:	Economic	Civilisational
Averages	172.06	153.84
Standard deviations	183.91	78.22

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

With respect to Table 1 it should be noted that while, indeed, the averages of the two indicators are relatively well balanced, the spreads are quite different (differing by more than factor of two). This brings us to the issue of the overall characterisation of the population of Polish communes.

2.2. A characterisation of the population of Polish communes

Municipalities are formally classified in Poland into *urban*, *rural* and *urban-rural*. There are some 300 urban communes, defined mainly on the basis of being "true-to-life" towns, even if small ones. Some of them are, of course, big towns and large agglomerations. Most of communes, close to 1,600, are formally rural communes, the rest (close to 600) being urban-rural, meaning that a (really) small town is treated together with the respective surrounding rural commune. Even though care was taken not to define "too small" communes, the resulting diversification is formidable, as shown in Table 2. Special attention ought to be paid to the enormous differentiation in terms of municipal budgets.

Table 2. The scale of differentiation of Polish municipalities

	Area in km^2	Population	Own revenues of communal budgets, in PLN (Polish złotys)	Revenues from personal income tax, in PLN
Minima	3.32	1,321	520,400	99,000
Maxima Ratio of max to min	634.80	1,692,854	4,855,300,000	2,086,895,000

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Table 2 conceals the expected various ranges of differentiation of the three classes of municipalities. So, in Table 3, the characteristics are shown for selected variables, entering the two indicators used, and for the total value of the development indicator, broken down into all communes, urban, rural and urban-rural ones, and respective minima, averages and maxima. The values here quoted enter the indicators, and are not the raw values of respective variables.

It is easily seen from Table 3 that the largest differentiation (in terms of the relative variables) exists, as anyway expected, for the rural communes. This is, in particular, expressed through the fact that the biggest number of the extreme values (marked by shading, in addition to the rows, corresponding to averages) occur in just these communes.

Table 3. Some characteristics of the values entering the indicators for various commune types

Communes:	Employed outside farming per 1,000 inhabitants	Unemployed per 1,000 inhabitants	Businesses per 1,000 inhabitants	% of inhabitants served by water supply	Summary indicator value
All					
– min	0	–366	18	0	–32
– average	115	–89	66	76	311
– max	4,439	0	336	132	5,861
Urban					
– min	16	–366	40	22	189
– average	232	–87	109	92	593
– max	549	–24	336	99.70	1,032
Rural					
– min	16	–215	18	0	–32
– average	83	–87	55	71	240
– max	4,439	0	324	104	5,861
Urban-rural					
– min	0	–205	30	0	63
– average	140	–95	74	81	358
– max	800	0	268	132	1,272

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Some “strange” values, which occur in this table, like 0 persons employed outside of family farming or 0 of unemployed are either statistical artefacts, or errors, or, ultimately, the reflection of the true, but extreme situation (this is, most

probably, the case of 0 unemployed, since there may be communes in which no jobless person is formally registered).

Two particularities should be explained. One is related to the maximum total indicator value, closely related to the maximum score for the number of employed, recorded for a rural commune! This is the effect of the data collection system, based, as mentioned, on location of company seats. The exceptional commune (4,439 persons employed per 1,000 inhabitants) is Kleszczów in central Poland, where large-scale lignite mining centre developed, along with a power plant and a lot of accompanying enterprises. The other is the phenomenon of more than 100% of inhabitants served in maximum cases by water supply (104% for a rural commune and 132% for a rural-urban commune). This is a simple statistical artefact, resulting from the way the water supply companies report the extent of the respective systems. Luckily, these cases are very rare indeed, and do not spoil the entire image.

Now the conclusions that can be drawn from this table are straightforward. First, as said, the biggest differentiation is observed among the rural communes (the shading outside of the averages indicating the extreme values). It should be noted that even for the number of registered businesses per 1,000 inhabitants the maximum for rural communes is almost identical to the maximum for towns (324 vs. 336), both numbers being very high indeed. It appears that the ranges of values taken are in a way related to the numbers of municipalities in respective types, a rather strange statistical phenomenon, easy to formulate, but certainly hard to explain.

The summary indices, being simple sums of "scores" of all the variables listed, were also represented by the yet simplified linear regression models, making them dependent upon the selected, most important variables. The results of such models are presented in Table 4.

Table 4. Coefficients of summary indicator models for particular types of communes

Model elements:	Constant	Employed per 1000	Jobless per 1000	% water supply availability	% sewage availability	% water treatment availability	R^2
Models for communes:							
– all	129.25	1.25	1.24	0.96	1.24	1.15	0.94
– urban	203.51	1.19	1.15	0.06	1.52	1.08	0.85
– rural	124.31	1.25	1.27	1.05	1.58	0.97	0.92
– urban-rural	140.09	1.22	1.20	0.68	1.03	1.41	0.90

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Two aspects, shown in Table 4, attract attention: (1) lack of dependence upon water supply availability in towns, obvious in view of virtually complete availa-

bility of water supply in towns (92% on the average, see Table 3), and (2) high degree of similarity of models, with the one exception mentioned. It is also interesting to compare the constant coefficients of these models with the average scores, shown in Table 5.

Table 5. Comparison of average summary scores and model constants for commune types

Communes	Average summary score	Constant model coefficient
All	311	129
Urban	593	204
Rural	240	124
Urban-rural	358	140

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Thus, the variable part of the model plays the least important role in the case of rural communes, as closely linked to the fact that the variability of scores is the highest in this type.

2.3. A look at the extremes

The definition of the two simple measures, "economic" and "civilisational", was meant to highlight two sides of the sustainable development, which, by a proposition inherent to the study, ought to remain in equilibrium if the development is to be sustainable. Thus, it is natural that the question arises of the extremes, i.e. – the communes in which the two aspects are most "disequilibrated". Given the content of Table 1, an expected distribution of values is centred at the averages, flatter for the economic indicator and more pronounced for the civilisational one. Hence, first, Table 6 shows the numbers of communes, featuring extreme values. When looking at the table, one should keep in mind that the total number of communes is at around 2,500, of the urban ones – around 300, rural – around 1,500, and urban-rural – 600. Let us also add that these statistics do not account for the really "outlying" observations, like the one of the commune of Kleszczów, mentioned before, and the extremes represent, in a way, the borders of the mass of communes in a multidimensional space.

Now, let us see the numbers of the most "disequilibrated" communes in terms of the two indicators, first, in Table 7, with an exceptional domination of the economic indicator, and then, in Table 8, with an exceptional domination of the civilisational indicator. Even though this may seem strange, there are such communes, and they are not so few as one might expect.

Table 6. Numbers of communes featuring extreme values of the indicators

Numbers of communes featuring the values of the indicators:			
Economic		Civilisational	
< –10	52	< +30	56
< 0	79	< +40	87
< +10	106	< +50	125
< +20	145	< +60	177
< +30	193	< +70	257
< +40	256	< +80	363
< +50	332	< +90	549
…		…	
> 300	363	> 230	444
> 310	338	> 240	391
> 320	311	> 250	342
> 330	298	> 260	305

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Table 7. Numbers of communes with extreme domination of the economic indicator

Civilisational indicator	Economic indicator			
	> 200	> 210	> 220	> 230
< 50	10	9	8	8
< 40	9	8	8	8
< 30	6	5	5	5

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Table 8. Numbers of communes with extreme domination of the civilisational indicator

Civilisational indicator	Economic indicator			
	< 0	< 10	< 20	< 30
> 180	5	9	11	14
> 190	3	7	8	11
> 200	3	5	6	9

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Now, at the real far bottom of the scoring there are communes with very low values of both indicators. Their numbers are shown in Table 9.

Table 9. Numbers of communes with extremely low values of both indicators

Civilisational indicator	Economic indicator				
	< –10	< 0	< 10	< 20	< 30
< 30	2	2	2	6	7
< 40	2	2	2	9	11
< 50	3	3	4	11	17
< 60	3	3	4	12	19

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Table 10. Top 20 communes featuring the biggest difference of the two indicators

Commune (area in Poland)	Type	Economic	Civilisational	Absolute difference
Józefów (near Warsaw)	1	537.22	62.73	474.49
Łomianki (near Warsaw)	3	547.05	83.49	463.56
Raszyn (near Warsaw)	2	588.08	158.83	429.25
Michałowice (near Warsaw)	2	563.22	179.85	383.37
Stryszów (near Cracow)	2	361.44	13.38	348.06
Siewierz (Silesia)	3	432.91	102.71	330.20
Radziejowice (not far from Warsaw)	2	338.54	33.19	305.35
Jabłonna (near Warsaw)	2	311.01	39.81	271.20
Marki (near Warsaw)	1	373.17	105.78	267.39
Pełczyce (Western Pomerania)	*3*	*–3.76*	*261.22*	*264.98*
Puszczykowo (near Poznań)	1	428.25	168.29	259.96
Bełżec (region of Lublin)	2	272.60	20.19	252.41
Karnice (Western Pomerania)	*2*	*–57.98*	*192.54*	*250.52*
Podkowa Leśna (near Warsaw)	1	397.35	147.04	250.31
Grzmiąca (Western Pomerania)	*2*	*–36.72*	*208.12*	*244.84*
Ślemień (Beskidy Mts., near Silesia)	2	254.03	11.67	242.36
Dobra (Western Pomerania)	*3*	*–18.56*	*215.55*	*234.11*
Trzciana (not far from Cracow)	2	242.67	12.81	229.86
Radzymin (near Warsaw)	3	301.89	75.77	226.12
Dębe Wielkie (region of Warsaw)	2	238.43	16.39	222.04

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Beyond doubt, life quality in at least majority of communes, counted in tables 7, 8 and 9, is to a definite extent impaired. This appears, of course, to be especially true for those from Table 9. Yet, those from Table 9 mostly turn out to be deeply peripheral communes (e.g. in Beskidy Mts.) for which the idea of balancing the two indicators, and these indicators in general, seems applicable in a highly particular manner (in deeply peripheral, thinly populated communes economic development is obviously not pronounced, and the needs for civilisational achievements are not pronounced, either, but to only a little detriment). Yet, some of the communes entering the right-bottom corner of Table 9 are located in

otherwise well-developed regions (e.g. province of Masovia), and constitute the "black holes" of such regions. Hence, Table 10 presents the top 20 communes with the biggest absolute differences between the values of the two indicators.

This is, indeed, a striking image. Of the 20 communes – ten are either within the suburbs of Warsaw, or close to them, all featuring high domination of the economic indicator over the civilisational one. Then, four are from the region of Western Pomerania, with quite an opposite image. Thus, on the one hand, we deal with communes of suburban type of development, while, on the other hand, with those of the formerly German (Prussian) territories, where large-scale state farms dominated in the post-war period, which collapsed, leaving economic black holes.

3. Voting for the life quality?

3.1. The first glance

As mentioned already, in this modest exercise we do not try to build another ("comprehensive" or "systemic") theory of measuring quality of life (see, e.g., [10]), nor do we try to check some of the existing methodologies, often widely publicised (e.g. [1; 2; 3; 6; 7; 11]). Instead, we treat the "quality of life" as one of the underlying phenomena which can actually only be measured indirectly, not necessarily through complex methodologies, but rather through tangible intermediaries. It is one of the aspects of development, which is the main subject of the study. We chose the simple intermediary of migratory flows, and compared them to the other indicators we use.

So, let us now look at the top 20 communes, shown in Table 11, from the point of view of migrations. The reasoning behind is, of course, very simple, if not trivial: what stands behind the differentiation in migratory flows and net migration balances? That is, we try to look at the same time at the overall migration intensity ("location-wise mobility"), being the sum of the inflow and outflow indicators, and the net migration balance, the latter especially in terms of distinction of positive-versus-negative.

The content of Table 11 is at the same time trivial and surprising. It is trivial in that we appear to know well that it is the "development bee-hives" that are the (net) sinks of migrations, while the "development peripheries" continue to be the migration (net) sources, as long as there are people there that might migrate. It is, however, surprising in that, at a first glance, conditions existing in these places must not necessarily correspond to what is usually perceived as high quality of life:

– low quality and availability of technical infrastructure (not just water, sewage and wastewater treatment, but also roads, phone lines, etc.);
– low quality and availability of social infrastructure (education and health care, first of all);

– low or no spatial order (petty industries amongst family housing areas, aesthetical disruption, high uncertainty as to the value of the estate, etc.); and, last not least,
– very frequently observed high crime rates (especially in the transforming suburban municipalities).

Table 11. Migratory movements in and out of the communes from Table 10

Commune (area in Poland)	Economic	Civilisational	Inflow*	Outflow*	Balance*
Józefów (near Warsaw)	537.22	62.73	25	11	14
Łomianki (near Warsaw)	547.05	83.49	35	10	25
Raszyn (near Warsaw)	588.08	158.83	18	11	7
Michałowice (near Warsaw)	563.22	179.85	31	11	20
Stryszów (near Cracow)	361.44	13.38	8	8	0
Siewierz (Silesia)	432.91	102.71	12	8	4
Radziejowice (close to Warsaw)	338.54	33.19	30	11	19
Jabłonna (near Warsaw)	311.01	39.81	75	12	63
Marki (near Warsaw)	373.17	105.78	36	16	20
Pełczyce (Western Pomerania)	*–3.76*	*261.22*	*12*	*14*	*–2*
Puszczykowo (near Poznań)	428.25	168.29	24	15	9
Bełżec (region of Lublin)	272.60	20.19	10	11	–1
Karnice (Western Pomerania)	*–57.98*	*192.54*	*6*	*15*	*–9*
Podkowa Leśna (near Warsaw)	397.35	147.04	19	22	–3
Grzmiąca (Western Pomerania)	*–36.72*	*208.12*	*15*	*18*	*–3*
Ślemień (Beskidy Mts., near Silesia)	254.03	11.67	8	9	–1
Dobra (Western Pomerania)	*–18.56*	*215.55*	*16*	*21*	*–5*
Trzciana (not far from Cracow)	242.67	12.81	7	9	–2
Radzymin (near Warsaw)	301.89	75.77	20	8	12
Dębe Wielkie (region of Warsaw)	238.43	16.39	19	8	11

* per 1,000 inhabitants, rounded to full persons.

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

Yet, this is what anyone can see. There are exceptions, or apparent exceptions, to the general, even if approximate, rule. A notable one is constituted by the commune of Podkowa Leśna, near Warsaw, listed in Table 11. At a first glance it is very similar to, say, the commune of Marki, or (even better, for those who know), Puszczykowo near Poznań. Yet, its migration balance in the year observed was negative! And generally, it is close to zero. This is the effect of the fact that Podkowa Leśna is one of the richest municipalities in Poland (personal income tax paid *per capita*). And the rich ones do not wish to have congestion, nor any (or

most) of the phenomena listed above. This is secured by local regulations on, for instance, minimum size of building plots and the policy of issuing construction permits.

Let us add at this point that the difference, appearing in the last column of Table 10, dwindles down to 130 points at the end of the next 20 communes (i.e. for, roughly, the 40th commune in this ranking). Thus, we observe here the true-to-life border of the respective distribution.

3.2. The first attempts of modelling

A number of simple models were tried out to gain a somewhat deeper insight into the mechanism of migration in relation to other variables considered. One of the results is shown in Table 12. We do not show here the results for the urban communes, in view of the highly specific nature of these results, and the obvious differentiation of character in the class of urban communes (e.g. large agglomerations vs. medium and small towns).

Table 12. Linear regression models of net migration in rural communes in years 2003-2006

Model element	Scale of magnitude	2003	2004	2005	2006
Constant	–	–11.4	–10.9	–8.5	–8.9
Population density	10^0	2.8	1.6	1.8	1.7
Own revenues of commune *per capita*	10^2	–0.001	–0.002	–0.001	–0.0001
Employed per 1,000 inhabitants	10^1–10^2	0.013	0.012	0.011	0.006
Jobless per 1,000 inhabitants	10^1	–0.013	–0.015	–0.030	–0.004
Businesses per 1,000 inhabitants	10^1–10^2	0.097	0.118	0.104	0.079
% of population with sewage	10^1	–0.01	–0.01	0.002	–0.02
Financial independence	10^{-1}	16.42	18.38	12.74	20.22
R^2	–	*0.34*	*0.33*	*0.32*	*0.36*

Source: own calculations, based on data from BDR of GUS (Bank of Regional Data of the Polish Central Statistical Office).

This table provides largely a confirmation of what has been said before, with some reservations, though. Thus, the base (constant) is negative, reflecting the conditions in truly peripheral, depopulating areas. Then, people move to the places, where there are already more people than on the average. And they move towards areas which are rich, and economically active, rather than environmentally friendly…

The models shown display reasonable stability from year to year, additionally supporting the conclusions drawn. Given that these models are based on data for around 1,500 units, their validity for making these conclusions appears to be ascertained.

4. Some preliminary observations and conclusions

What is life quality? We are trying to shed light on an aspect to the answer to this question. It is related to the perception through the intermediary of migrations. A lot of counterarguments can be voiced against this proxy, or intermediary, but it must be also remembered that all the existing and published methodologies provide nothing but proxies or substitutes. The results here cited are indeed telling in their clarity. If one feels that there is something wrong about them, it is primarily in view of the "theoretical" conviction as to "how life quality should look". Thus, we shall pursue this study, by slightly developing on the "theoretical" side, and enriching the empirical investigation.

It appears here that three important features ought to be taken into account in the future course of this study:

– the differentiation of the migration models between the three types of communes and within these types (e.g. the already mentioned internal differentiation of the urban commune type), i.e. identification of different kinds of models which may reflect either different modes of the same process, or perhaps different kinds of processes;
– verification of the hypothesis of a relative character of quality-of-life-through-migration assessment, meaning that life quality, as expressed through migrations, is different for definite conditions, including the ones identified as above, but primarily referring to the population groups (see the case of Podkowa Leśna, indicated before), i.e., quality of life is different for different groups of people;
– most difficult – verification of the incremental hypothesis, meaning that the differentiation, mentioned above, can be organised, or ordered, into a regular process, in which some variable or variables define the direction of change (e.g. level of income).

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CZY MOŻNA OCENIĆ JAKOŚĆ ŻYCIA NA PODSTAWIE OFICJALNYCH DANYCH STATYSTYCZNYCH Z POZIOMU GMIN?

Streszczenie

W ramach badań nad zrównoważeniem rozwoju na poziomie gmin w Polsce i opracowaniem wskaźników rozwoju zrównoważonego, prowadzonych w projekcie ANAGMIS, jednym z tematów była jakość życia i możliwość jej oceny na podstawie oficjalnych danych statystycznych z tego poziomu. W artykule odniesiono się do dwóch najprostszych takich wskaźników, addytywnych względem rozpatrywanego zbioru zmiennych, mających ilustrować „gospodarcze" i „cywilizacyjne" aspekty rozwoju gmin. Pokazano istniejące w tym zakresie skrajności i na ich tle zajęto się – jako zastępczą zmienną, powiązaną z subiektywną oceną jakości życia w poszczególnych gminach („głosowanie nogami") – migracjami netto do poszczególnych gmin. Zestawienie wielkości migracji z wartościami wskaźników rozwoju zrównoważonego, „gospodarczym" i „cywilizacyjnym", pokazuje istotne statystycznie zjawiska, które mogą służyć, z jednej strony, do budowy modeli migracji, a z drugiej – do budowy modeli (postrzegania) jakości życia. Wnioski z badań pokazują, że rozwój zrównoważony pozostaje w dużej mierze konstrukcją abstrakcyjną, nie tylko w sensie naukowym, ale i operacyjnym.