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## THE QUALITY OF LIFE OF SUBURBANITIES: A CASE STUDY OF THE GDAŃSK AGGLOMERATION

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**ABSTRACT.** The article explains the meaning of the concept of ‘quality of life’, placing emphasis on its subjective dimension. As the concept is more and more discussed in the literature, the author intends to examine the satisfaction within public spaces for which local government is responsible. According to research made in Canada it is worth measuring not only satisfaction as such but also the importance of its constituent dynamics. Therefore, a survey made in the suburbs of the Gdańsk agglomeration asked respondents about their satisfaction with public transport, roads, environment, etc., including questions about the relative importance of such issues. The combination of satisfaction and importance provide the overall quality of life. At the end of the paper the author considers if there is a chance to improve the quality of life through a brief analysis of local governments expenditure.

**KEY WORDS:** Poland, Gdańsk agglomeration, suburbanities, quality of life, local government, satisfaction, importance, budget expenditure.

### THE QUALITY OF LIFE

Definitions of the concept of ‘quality of life’ have been given by numerous authors (among others: Massam, 2002; Karwowski, 2003a, 2003b; Zborowski, 2005). One of the comprehensive definitions has been given by the World Health Organisation (WHO 2009; see also Dziurawicz-Kozłowska, 2002). According to the WHO, quality of life should be viewed as ‘a manner of perception by individuals of their position in life in the context of culture and the system of values in which they exist, in connection with their own goals, expectations, standards, and fears’; it is a broad concept, which is comprehensively influenced by the physical health

of an individual, his mental condition, social relations, degree of independence, and attitude towards significant characteristics of the surrounding environment. According to the World Bank (2009) quality of life (overall well-being) includes such intangible components as the quality of the environment, national security, personal safety, and political and economic freedoms. Generally one can say that quality of life refers to health, crime, housing, family life, leisure, education, work, transportation, economics, religion, and environment. Aside from environmental (ecological), technical, and spatial factors, which contribute to the quality of space or to life conditions, the economic, sanitary, and educational area are also accentuated in research on the quality of life. Even issues of public management, related to the participation of the inhabitants in public life, are emphasised in some of this work (see Sagan, 2004). The definitions refer to the quality of life as ‘a manner of perception by individuals...’, therefore emphasising its subjective dimension.

Weight is given to the research on the quality of life through the acceptance of the ‘Agenda Habitat’ at the UN Conference on Human Settlements ‘HABITAT II’, which convened in Istanbul in 1996. It states, e.g., that ‘the quality of life of all people depends on – apart from the economic, social, environmental, and cultural factors – spatial conditions and characteristics of villages and towns. The spatial layout and aesthetics of towns, the manner of utilisation of land, the density of population and buildings, transportation and easy access to basic goods, services and public utility sites, have a crucial effect on the quality of life in a residential settlement’. In addition, ‘...the spatial form of the environment created by a human being exerts a strong influence on people’s mood and behaviour and thereby on their health’ (Pluta, 2001: 93). Hence, the study focuses on issues of, among others, public transport, road infrastructure, recreation infrastructure, and environmental cleanliness as perceived by the inhabitants in the villages located in suburban areas.

The quality of life is also called social well-being. Smith (1973) distinguishes seven groups of indices representing different issues influencing social well-being: income, wealth and employment, life environment including living conditions, physical and mental health, education, social order, recreation, and leisure time. Social well-being, based here on objective indices, was used for the purposes of a comparison between individual states in the United States of America and between the areas among metropolises and individuals inside towns. Apart from the objective indices the subjective perception of the quality of life has also been the subject of research (Rogerson et al., 1989). The subjective dimension of the quality of life is based on questionnaire surveys, which increase the cost of such research, and their spatial range is therefore restricted. Consequently, it becomes more difficult to make comparisons between larger areas (Knox, Pinch, 2000).

The research on the fulfilment of human needs refers to the analysis of the objective dimension of the standard of living, and is based on the so-called Genevan method (Drewnowski, following Zborowski, 2004). The wide discretion in selecting indicators describing the standard of living makes it difficult to create a coherent system which would reflect essential issues of the standard of living. The weighting of the indicators is also a problem in this kind of research, because these weights, selected subjectively, may lead to completely different conclusions. The analyses based on the research on the quality of life related to the subjective well-being of individuals derive from medicine, psychology, and sociology. The development of those research projects, among others in the field of geography, has been a reaction to the absolute approach to economic indices, which has appeared to be insufficient for the assessment of the standard and conditions of life, because the evaluation of those categories (the quality of life, strictly) should belong to particular individuals. Hence the development of questionnaire surveys enabling the actual examination of life satisfaction. It should be emphasised that the objective indices cannot fully describe well-being (the quality of life), because this also results from social and cultural values of the examined population. In such a manner, in the subjective dimension, the quality of life of a resident of the United States does not have to be higher than the subjective assessment of the quality of life (life satisfaction) of a resident of India, if the latter experiences stronger life satisfaction despite, for example, being less wealthy or in worse conditions. In the subjective assessment of the quality of life there are also those areas of life taken into consideration which are not captured by any statistical data. The research on satisfaction or well-being can be based exclusively on questionnaire surveys.

## RESEARCH METHODOLOGY

The results of the research presented below are based on the hypothesis that local policy affects subjective perceptions of the quality of life. Regional, domestic, and international policy can do so as well. There is no way, however, to separate precisely the influence of each of the levels of the policy on the quality of life. The conducted research assumes that local government influences the quality of life through local governmental expenses which service the local society. Asking the inhabitants detailed questions about their satisfaction regarding particular areas of life, which are financed by the local government (called *gmina*) (1), or which are influenced by the *gmina* pursuant to the provisions of relevant acts, a thesis can be stated that local government exerts an influence on the satisfaction (well-being) of the inhabitants, i.e., on their subjectively perceived quality of life.

This research is based on the results of a questionnaire survey conducted in the suburbs of the Gdańsk agglomeration. The inhabitants had a chance to express their satisfaction or dissatisfaction on selected issues of activities of local government, i.e., those activities, which constitute the tasks of the local government. In the survey, questions were asked about the satisfaction with different aspects of public transport (the bus frequency, the cleanliness of the buses, the development of the network of public transport, and others) or different aspects of road infrastructure. Questions were also asked about, for example, the quality of educational services in gminas, the housing economy (including difficulties related to the lack of water supply and sewage systems), the possibilities for recreation, the cleanliness of the environment, the cultural offer, and others. This study only presents the conclusions from the conducted research and it does not contain any detailed results of the research.

The questionnaire survey was conducted in 45 villages in 7 gminas (2) (cf. Fig. 1) of the suburban area of the Gdańsk agglomeration. The selection of the villages results from visible morphological changes which occurred after 1989. Their selection was made with the assistance of topographical maps scale 1: 10 000 issued by GUGiK at the beginning of the present millenium and maps scale 1: 25 000, whose topicality was defined at end of the 1970s and the



Fig. 1. The area of author's research

Source: Author's own elaboration

beginning of the 1980s. Both editions were compared and areas where the most significant changes in the settlement network occurred were selected. The author was interested in the opinions expressed by inhabitants that settled in the suburban areas after 1989; those persons were able to compare their current place of residence with the previous one, which allowed for the acquisition of reliable responses. The research was conducted using 826 persons. The method used for the purposes of the research was the random-route method with the use of simple random sampling.

The questionnaire survey allowed inhabitants to indicate the level of satisfaction and the importance of each categories. The measurement scale was a five-point (satisfaction) and a four-point ratio (importance). In order to combine these two ‘dimensions’ the author used methodology described by Massam (2002). The scores for both dimensions were combined to derive an overall quality of life score. The conversion table is shown below.

Table 1. Calculation of quality of life scores using importance and satisfaction ratings

A	B	C
1	1	8
	2	4
	3	0
	4	-4
	5	-8
2	1	6
	2	3
	3	0
	4	-3
	5	-6
3	1	4
	2	2
	3	0
	4	-2
	5	-4
4	1	2
	2	1
	3	0
	4	-1
	5	-2

Explanation: A – importance; B – satisfaction; C – quality of life score

Source: Based on Massam (2002) and Renwick, Brown (1996)

### INHABITANTS’ SATISFACTION

As has been mentioned, the inhabitants of the suburban areas were asked questions about their satisfaction with different aspects influencing the quality of life. On a five-degree scale of satisfaction (1 – very satisfied, 5 – very dissatisfied), approximately 70% of the inhabitants admitted that they are satisfied or very satisfied with the quality of environment and nature. Only 14% were dissatisfied or very dissatisfied, and 16% admitted that they had no opinion on that subject. Also a substantial number of the respondents were satisfied with the urbanized area (including the density of buildings, aesthetics, provision of water supply and sewage system infrastructure, etc.). Slightly fewer people expressed their satisfaction with the educational services offered to their children in primary school and in junior high school (cf. Fig. 2).

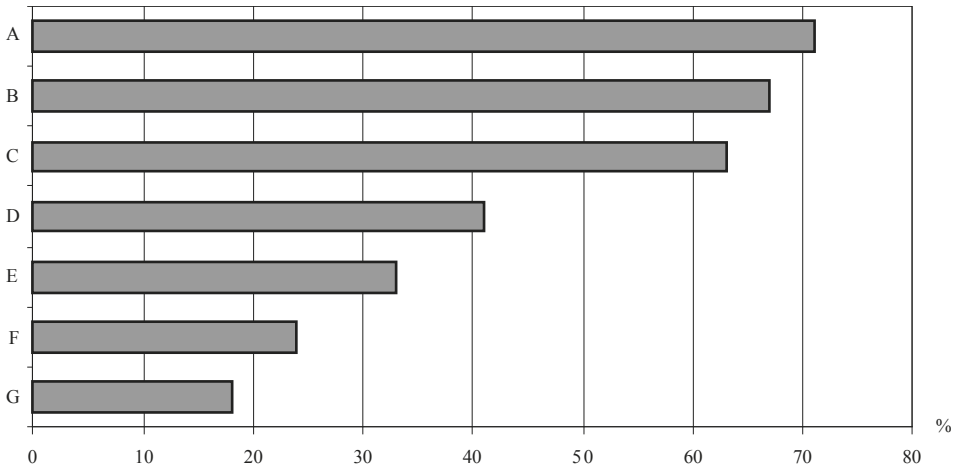


Fig. 2. Satisfaction of the inhabitants of the suburban area (only positive opinions) with selected aspects of public space

Explanation: A – the quality of the environment and nature; B – the quality of the built-up area; C – educational services; D – public transport; E – cultural offer; F – road infrastructure; G – recreation and sport infrastructure

Source: Author's own elaboration

Decidedly fewer people were satisfied with public transport (in particular, with the frequency of bus services). The least positive opinions were expressed on the possibility of use of the recreation and sports infrastructure, and only a little more positive were the opinions on the cultural facilities and events provided by the local government. An equally small number of positive assessments were expressed on the quality of the road infrastructure, including the number of hardened roads. The results of the research presented here show that new inhabitants of the suburban area must take into account a weakly developed road infrastructure, a small number of bus connections and insufficient culture on offer for the more demanding. The recreation infrastructure is also deemed (no parks, no playgrounds, no cycle paths, etc.). This problem is common to many agglomerations in Poland and is characteristic of the initial phase of the development of metropolitan areas.

### THE IMPORTANCE OF RESEARCHED CATEGORIES

The methodology of the calculation of quality of life, as is mentioned above, assumes combining satisfaction and importance. Respondents were questioned how important to them environment, transportation, road infrastructure and such are. They could indicate between 1 (very important) and 4 points (not important at all). The results of survey is presented on the Fig. 3.

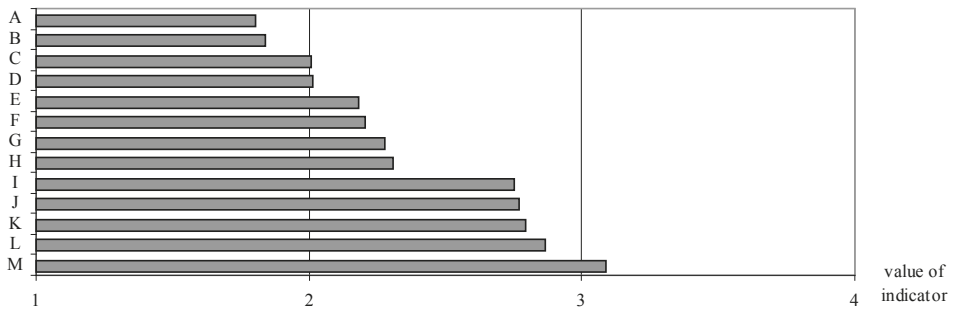


Fig. 3. The importance of examined aspects

Explanation: A – environment; B – level of safety; C – aesthetic and density of built-up areas; D – access to forests and lakes; E – public transport; F – access to shops and basic services; G – education in local district; H – road infrastructure; I – financial policy of local government; J – access to recreation areas; K – social offer; L – cultural offer; M – local government

Source: Author’s own elaboration

The most important for quality of life are the environment and level of safety. Aesthetics and density of built-up areas turn out slightly less important. The cultural and social offer does not affect highly the quality of life. Similarly, access to recreation areas is not important to the suburbanites; this is so, because they live in one-family houses with backyards. But one result is very interesting: the respondents do not connect examined categories with good governance; the issues related to local government are not important to their quality of life.

## WILL THE QUALITY OF LIFE IN THE SUBURBS RISE?

The local government (gmina) in Poland executes many tasks described in their reports. Here, some of the tasks are defined in detail (e.g., educational expenditures), while others are not subject to any strict limitations (expenditures on roads, sewage system, water supply, planning, culture and recreation). It can be seen that the highest expenditure incurred by the seven local governments (not presented in details in this paper) was on education in primary schools and junior high schools, but the financial funds were in most cases directly transferred from the state's budget within the framework of a so-called educational subsidy. That expenditure fluctuated slightly in the seven gminas under examination in last years, and the investments in new the premises has decreased slightly.

Investments were mainly in new buildings of junior high schools, and to a lesser degree in primary schools and kindergartens. The expenditure on water supply and sewage system infrastructure was smaller, and the amount of the investments fluctuated. It is worth emphasizing that the funds spent on routine road repairs and investments in new local roads have increased in recent years, which meets the expectations of society (cf. Fig. 2).

Much lower expenditure related to such local governmental tasks as the protection of the environment (the local government mainly takes care of communal waste collection, rain sewage system, and cleaning services). The increase in the amount of land purchased by the gmina may be regarded as a positive development. It mainly relates to land for widened roads, and to a lesser degree to land for other public projects (e.g., playgrounds, parks, etc.). Unfortunately, expenditure on planning work (including the preparation of local spatial management plans) has been decreasing, whereas in the gminas under examination, as a rule, several per cent of their area is covered by a plan. In the course of the questionnaire surveys, it was noticed that the inhabitants perceive (and negatively assess) the spatial chaos in the villages in the suburban area that are undergoing rapid urbanizing changes. Although, in general, the quality of the built-up area is positively assessed (in comparison to the previous, very often degraded places of residence in cities), the inhabitants perceive some of the public space as improperly managed.

The expenditure of gmina on culture, in line with expectations, has increased in recent years. The opinions of the inhabitants, however, is mostly related to the quality of the cultural facilities. The respondents argued that these are mainly oriented toward children and young people: therefore, it fails to meet the respondents' expectations. Consequently, they feel forced to travel to large cities



such as Gdańsk, Sopot or Gdynia; in the nearest future it cannot be expected that small rural gminas, deprived of substantial financial funds, will be able to offer entertainment of a high standard. The financial funds for the purposes of recreation seem small in comparison to the social expectations (cf. Fig. 2).

## CONCLUSIONS

The result of the survey showed that respondents are satisfied with some aspects of public space and that some aspects are more important to them than others. But respondents could answer with regard to seven categories when asked about satisfaction, and thirteen when measuring importance. Therefore, some categories were joined, for instance: environment and access to forests and lakes were combined to obtain 'the quality of the environment and nature' (measurement of level of satisfaction). Some aspects of 'importance' were omitted.

The methodology of combining satisfaction and relative importance allowed the researcher to ascertain the overall quality of life. The results are from +8 to -8. A score of 3.6 or higher is considered excellent and scores of 1.2-3.6 indicate a very acceptable situation. Scores of -1.2 to +1.2 indicate an adequate situation, scores of -1.2 to -1.6 are problematic, and scores less than -3.6 are very problematic (3). The results of calculating the quality of life for suburban area of Gdańsk agglomeration is **+0.3**. The score above 0 reflects positive quality of life, but one can say that the **quality of life** in suburban areas is considered by inhabitants as **not high**. There are some advantages with moving to the suburbs, e.g., better environmental conditions, a semi-natural landscape and small-size buildings. On the other hand, however, there are some disadvantages – poorly developed road infrastructure and low frequency of public transport. These positive and negative aspects, in the author's opinion, are common for suburbs all over Poland.

The excerpt from the wider research presented above permits the conclusion that expenditure on the road infrastructure is increasing rapidly, which is in accordance with the social expectations of the inhabitants of the area under examination. Those inhabitants settled in the suburban area after 1989, i.e., in the period of increased inflow of people to the suburban areas in Poland. Due to the selection of a specific group of people for the purposes of the research, people who are able to make a comparison between their current place of residence and their previous one (most often in cities), the responses acquired can be considered relatively reliable. The expenditure on the sewage system infrastructure has fluctuated, and this resulted partially from the obligations of Poland towards the

European Union in consideration of the protection of the environment. But the expenditure on waste collection and separation has been increasing. The cultural offer and the recreation infrastructure have been perceived negatively. These issues have affected (and will affect in near future) negatively the subjectively perceived quality of life of the inhabitants in the suburban area of the Gdańsk agglomeration.

## NOTES

- (1) gmina – administrative region of the 3<sup>rd</sup> order
- (2) the survey was conducted in seven rural gminas, i.e., in Luzino, Kosakowo, Wejherowo, Szemud, Kolbudy, Pruszcz Gdański and rural-urban gmina Żukowo
- (3) relevant to five-point ratio of satisfaction and five-point ratio of importance; see Brown et al. (1998)

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