

# THE PHENOMENON OF SUBURBANIZATION AND SATISFACTION OF THE POPULATION IN SELECTED VILLAGES

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*Abstract:* The paper analyses the influence of counterurbanization on the contemporary face and nature of the countryside. The research was focused on identifying problems associated with the countryside. It presents several different examples of counterurbanization in some rural areas. Average statistical indicators such as the number and age of population, highest level of education, and others were compiled and evaluated. Possibilities of transport accessibility to the nearest towns were also included and analysed. Comparative methods were used in selected areas not only for statistical data but also for map data. The comparative methods were complemented with the results of interviews with local residents. The results show differences not only in the statistical data for the individual villages but also allow an insight into different cultural life and life quality in rural areas, and its perception by residents. Based on the obtained data, we could identify different factors influencing the process of counterurbanization/suburbanization in the individual areas.

*Key Words:* land appropriation, countryside, counterurbanization, land use, quality of life

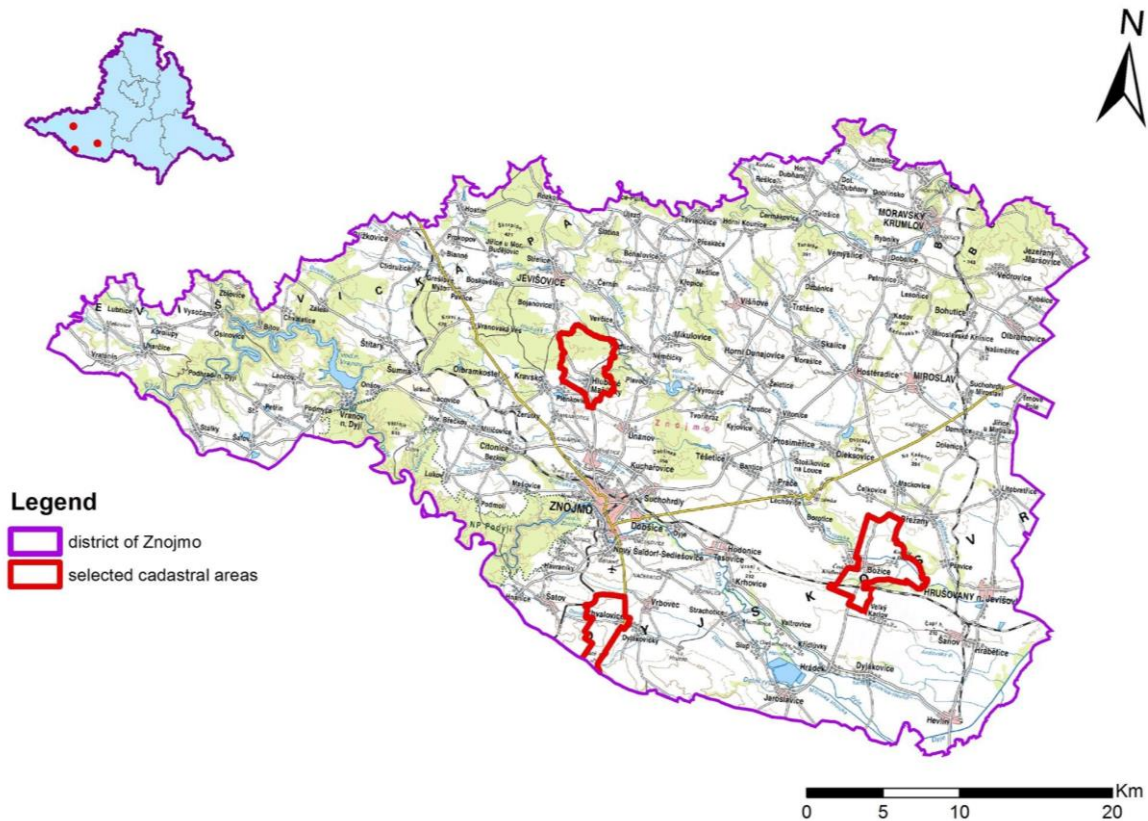
## INTRODUCTION

Counterurbanization and suburbanization are demographic and social processes whereby people move from urban areas to rural areas (Berry 1980). Another definition of suburbanization as a process of moving residential, commercial and other functions from the core town to its suburbs, and moving inhabitants and their activities from the core to suburban and rural areas still does not make it possible to distinguish precisely between counterurbanization and suburbanization. At all the above-mentioned definitions, suburbanization will be perceived as a part of counterurbanization with the population structure being a key to the understanding of post-socialist urbanization (Krisjane and Berzins 2012). For the purposes of our research, we anticipated that suburbanization could be understood as a component of counterurbanization. Rural areas constitute 73–82% of the Czech Republic's land area (depending on specific criteria) (Novotná et al. 2013). Residential decentralization is a major trend in the Czech Republic after 1990. Under the development of suburbanization, according to Guest and Brown (2015), there are two main causes, namely transport technologies that increasingly make it possible to travel over long distances for a short time span, although congestion in urban centers is partly limiting. Second, improving electronic communications. In post-capitalist countries, according to Stanilov and Sýkora (2014), fast suburbanization is facilitated mainly by the privatization of state assets, deregulation of economic activities and decentralization. At the same time, we must also take into account the new quality of suburbanization in Central and Eastern Europe, especially after 2000. It is not just about migrating people but also jobs and suburban work. This means changing the relationship between the core and the suburban area. Nevertheless, the motivation for suburbanization and its interpretation can not be generalized. The features of this process differ from case to case and depend on the context (Brade and Kovacs 2014).

Researched areas were three villages situated in the Znojmo district (Figure 1). First written references to these three villages date back to the 13th century. Their different development resulted primarily from historical events in the period 1938–1989. The village of Hluboké Mašůvky

is situated 8 km north of Znojmo town. The village of Chvalovice, which is the smallest of the three villages chosen for our research, is situated 8 km south of Znojmo. The village of Božice is situated 20 km east of Znojmo town and in our research, it represents the largest and most populated village

*Figure 1 Znojmo district depicting the selected cadastral areas. ArcGIS Programme, Author (ÚAKE, FA MENDELU 2017)*



## MATERIAL AND METHODS

For this study, we chose two municipalities neighboring their cadastre with the city of Znojmo (33 823 inhabitants) and one municipality over 1 000 inhabitants for comparison of developments not located in the neighborhood of the town of Znojmo. Chvalovice and Hluboká Mašůvky were chosen due to the different population development after 1945.

### Comparative method

Using the comparative method, we compared the aspects of individual villages. Similarly, we used this method to compare changes in maps, orthophotomaps and statistical documents for individual areas.

Hypothesis 1: In our opinion, suburbanization and its recognition is based primarily on the age and on the educational structure of inhabitants along with the distance of commuting to job/school.

Hypothesis 2: We also presume that the number of inhabitants and houses accomplished in the period between 2001–2016 increased due to the fact that the village cadastre neighbours with a town.

### Interviews with villagers

Semi-standardized interviews with citizens in the respective villages combine the comparative method with data on the perception of cultural life and life quality in the village.

### Processing of map outputs

ArcGIS 10.3.1. software was used to process the map outputs.

## RESULTS AND DISCUSSION

### Development of inhabitants and houses

Chvalovice, Božice and Hluboké Mašůvky villages are most likely of old Slavonic origin and the first written records date back to the 13th century. All the selected villages with the exception of Hluboké Mašůvky were adjoined to the Reich in 1938 and situated in the so-called Deutschsüdmähren. Hluboké Mašůvky was a typically Czech village which is demonstrated by for instance local names from the facsimile of maps of the stable cadastre dated 1824. The trend in the number of inhabitants and houses from 1869 provides an insight into the development of the villages. The village of Božice recorded the highest number of inhabitants and houses in 1930 (2 593 inhabitants and 596 houses). Following the events connected with the resettlement of local population in 1945 and subsequent repopulation of the area, the number of inhabitants dropped to 1 366 and the number of houses to 374 in 1950. In 1961, the population slightly increased to 1 606 persons. From that time, it was continually decreasing up to 1991, when the number of inhabitants started to grow again.

In the period that was most interesting for us (2001–2016), Božice attained a growth in inhabitants by 14.4% up to 1 544 and in houses by 14.3% up to 455. The village of Hluboké Mašůvky reached the highest number of population and houses in 2016 (814 inhabitants and 339 houses). The village that did not experience the mass displacement of population shows a continuous population development since 1869, with slight drops in 1950, apparently related to the evacuation of a few inhabitants and to leaving for resettled areas. Another small population decrease was recorded in 1980–1991 in connection with the departure of inhabitants to the nearby town.

In the period from 2001–2016, the number of inhabitants and houses increased by 15.8% and 23.3%, respectively. The highest population growth in the period from 2001–2016 was recorded in Chvalovice, by 55% for inhabitants (646 in 2016) and by 43.7% for houses (171 houses in 2016). Yet the village failed to equal the maximum number of inhabitants (808) reached in 1890 or the maximum number of houses (177) reached in 1930.

The village of Chvalovice is an example of village that was not only stigmatized by the displacement of inhabitants but also by the subsequent "iron curtain" and this is why its population was continuously diminishing until 1980. A significant population growth was recorded only after 2001; it was however connected with a considerable financial subsidy granted to the villagers.

### Farmland appropriation

These municipalities were gradually losing their farmland area. This shows best in the village of Hluboké Mašůvky (Table 1), where the scale of total cadastre area changed very little over time and thus the decline of agricultural land can be best observed. We have used the definition that agricultural land is land used for agriculture or pasture. Agricultural land consists of arable land, hop fields, vineyards, gardens, orchards, meadows and pastures. The remaining part of the surface is referred to as non-agricultural soil. It is further subdivided into forest soil, water areas, built-up areas and other areas (eg roads, playgrounds, pavements, gorges, parks) (Pozemky a farmy 2014). While the farmland constituted 53.4% of the cadastre area in 1945, it was merely 39.5% in 2016. At the same time, the built-up land segment increased from 0.4% in 1945 to 1.1% in 2016.

This development is evident also from the development of soils in the Czech Republic, where from 31. 12. 2000 was 54.3% of agricultural land and 45.7% of non-agricultural land. The situation in the Znojmo district on the same date was slightly different due to the prevailing agricultural character. Of the total acreage as of 31. 12. 2000, 69.3% of the land was agricultural and 30.7% of the land was non-agricultural, while 21.5% of the total area of the area was forest land and 1.2% of the water area. The situation as of 31. 12. 2016 confirms the decline of agricultural land. The situation in the Czech Republic is 53.4% of agricultural land and 46.6% of non-agricultural land. In the Znojmo district there are 67.5% of agricultural soils and 32.5% of non-agricultural soils. Of the total area of the district there is also an increase compared to 2000 in forest soils to 22.2% and water areas to 1.9%.

*Table 1 Appropriation of farmland in Hluboké Mašůvky. ÚAZK 2016, Bičík 2008, ČSÚ 2017*

Year	1945	1948	1990	2000	2016
Non-agricultural land (in ha)	559.90	698.20	752.00	769.60	776.39
Agricultural land (in ha)	608.70	580.7	528.10	508.20	507.35

### Social and economic aspects

Our selected aspects include: percentage of inhabitants over 65 years of age (Table 2), percentage of economically active people (since 2011), percentage of inhabitants commuting to school or job (since 2011) and percentage of inhabitants over the age of 15 who have attained complete secondary or higher education (since 2011). We also surveyed current services in the concerned villages such as the general practitioner, shop, post office, primary and nursery school.

*Table 2 Percentage of population over the age of 65 in the village. ČSÚ 2017*

Villages 2016	Population 0–13 years	Population 14–54 years	Population over 65 years	Population total	Percentage of population over the age of 65 in the village
Hluboké Mašůvky	139	524	151	814	18.60%
Chvalovice	127	437	82	646	12.70%
Božice	267	1015	262	1 544	17.00%

Age structure of the population closely relates to the ever-increasing mean age. In 2016, the mean age in the villages of Chvalovice, Hluboké Mašůvky and Božice was 37.9, 42.0 and 39.9 years respectively. Mean age and age structure combine with the increasing population and number of houses. In 2011, the percentage of economically active population in the village of Chvalovice was 50% and according to actual data on the age structure, age and economic status of respondents, we can assume that the percentage is between 55–60% in 2016. In the village of Božice, it was 44% in 2011 and the assumption for 2016 is 50–52%. In the village of Hluboké Mašůvky, it was 45% in 2011 and the assumption for 2016 is 50–55%. The percentage of commuters in 2011 was 26% in Chvalovice, 18% in Božice and 25% in Hluboké Mašůvky. The commuting of citizens to the nearest town of Znojmo/Hrušovany nad Jevišovkou is corroborated also by maps according to Ouředníček et al. 2008, who inform that the percentage of commuters over 45 minutes does not exceed 15% in the villages. The percentage of commuters in 2016 is definitely higher (over 30%); however, apart from the interviews, which reported 80%, the authors do not have other demonstrable results. The percentage of persons over 15 years with the completed secondary and higher education in 2011 in Chvalovice, Hluboké Mašůvky and Božice was respectively 28%, 24% and 20%.

### Life quality and its perception by residents

In the interviews were included 65 people from all three municipalities (24 Chvalovice, 22 Božice and 19 Hluboké Mašůvky). The most prominent group was women aged 25–35 with full secondary and tertiary education, who live in the community for a lifetime or for over 17 years. The interviews with individual residents indicate that their most frequent point rating (scale 1–6: 1 very poor, 6 excellent) was at the level of 5, i.e. good. An opposite result we received when the mutual interconnection was assessed of old residents and new comers where the most frequent rating was 2–3 points with the interconnection being evaluated as poor and inadequate. Perception of the development of intravillan and extravillan of villages in the last 17 years gave clear results only in the case of intravillan, when the citizens assessed the adequacy of new changes and development. As to extravillans, results of the interviews were not so clear; the residents were not able to evaluate the development of their village extravillan and focused most often only on the appropriation of land

connected with the new housing. This was assessed especially in the village of Hluboké Mašůvky as dislocated only to one site where a separate part of the village emerged without any continuous interconnection with the original built-up area. A quite opposite perception was recorded in Chvalovice, where the new housing is broken into several parts of which all are connected with the core built-up area. Notwithstanding the appropriate/inappropriate division of the new housing estates, a majority of respondents agreed that the location of buildings on the site was inappropriate as well as the size of building sites themselves, infrastructure was inadequate or missing, greenery lacking and road network inadequate, namely in terms of road width. Although the problem of the width of roads is felt only in the new developments, it should be pointed out that it is very similar in both new and old housing areas. We consider this negative perception as due to the increasing number of private cars. The fact also directly connects with the commuting to work/school where 65% of respondents stated to use only the car and only 20% regularly use public transport. The residents also expressed opinions about their possible engagement in organizing cultural events, about the frequency of such events and traditions in the village. Inhabitants of all villages miss "common village entertainments", especially in the summer time. They also gave explanation what cultural events are important for them and what are not. Interesting was that for example in the village of Chvalovice, residents consider the St. Margaret Pilgrimage (organized already for the seventh time in 2017) unimportant because unoriginal. At the same time, however, they take the event of open cellars (younger than the St. Margaret Pilgrimage) as a valuable mass event linking up with the tradition of wine growing and making in the village.

## CONCLUSION

It is very difficult to distinguish between suburbanization and counterurbanization in real life. Suburbanization can be viewed as a change in the population distribution and in the spatial structure of suburban areas as well as a transformation in the life style of "suburbanizing" inhabitants (Oufedníček and Temelová 2008). The problems of not only suburbanization and counterurbanization, but also the development of the concept and contemporary concept of counterurbanization are described in detail by Šimon (2011). Based on the comparative method, it is possible to say that the limit for suburbanized area is considered population increase by more than 25% and increase in the number of accomplished houses by 20% in 2016 as compared with 2001. Furthermore, the percentage of people over the age of 65 does not exceed 20%, the percentage of economically active people in the local population is over 50%, at least 1/3 of inhabitants over the age of 15 have completed secondary or higher education and over 1/3 of inhabitants commute to work or to school.

If the results of the comparative method also yield the results of interviews with citizens, we can say the following: The village of Chvalovice could be considered suburbanized because it met all criteria selected by us. The village cadastre neighbours with the town cadastre, and in the period from 2001–2016 the number of inhabitants increased by more than 25% and the number of houses increased by more than 20%. Specifically in Chvalovice, the increase in population and number of completed new houses amounted to 55% and 43.7%, respectively. At the same time, the number of inhabitants over 65 years of age does not exceed 20% (Chvalovice 12.7%) and the economically active residents represent over 50% of the population (Chvalovice 50%). Although the last two parameters and the fact that at least 1/3 of inhabitants over the age of 15 let have had completed the secondary or higher education (Chvalovice 28%) and more than 1/3 residents commute to work or to school (Chvalovice 26%) were not exceeded, it is assumed -with respect to some older data (2011) – they were exceeded in 2016. In spite of all this, we consider the village of Chvalovice as a counterurbanized area, primarily due to the decentralized new housing in the village, involvement of newcomers into the local cultural life, assurance of population's basic needs by the village shop, post office, general practitioner, kindergarten and other services for which the residents do not have to travel to the town. Although the village of Hluboké Mašůvky does not meet all criteria, we can consider it as a suburbanized area with regard to unavailability of all data for 2016.

In Hluboké Mašůvky, a clear problem emerged with the new housing on ill-thought layout of sites and with the missing connection with the original built-up area when the new development constitutes in fact a separate "satellite". Furthermore, the new development is perceived negatively by the old residents and the number of cultural events there, which would facilitate establishment

of mutual relations between the old residents and newcomers, forming also an important factor of perceiving life quality in the village, is decreasing. The village of Božice does not meet more criteria, which will presumably be not met in 2017 either and this why we consider the area as counterurbanized based on the results of interviews.

Both of our hypotheses have been confirmed and the results will be used for further suburbanization research in municipalities located in the neighborhood or near the town of Znojmo. Based on map outputs we can visually observe individual municipalities, changes in them and their location within not only the Znojmo district but also the South Moravian Region.

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