

CHANGES IN LAND USE STRUCTURE OF CITY OUTSKIRTS ACCORDING TO DECISIONS GIVEN BY LOCAL ADMINISTRATION

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Abstract: A dynamic development of settlement around cities has led to changes in spatial management and spatial structure of suburban areas. Cities strongly influence the development of suburban areas in the economic, social or spatial aspects. A true challenge is the creation of local spatial policy, responding to the needs of sustainable development.

Ignoring the problems connected with the development of suburban areas may lead to undesired results such as the phenomenon of the so-called “urban sprawl”. It is connected with the shaping of spatial policy of communes on the basis of administrative decisions. The decisions related to the construction conditions and divisions of real property (especially the ones resulting from the spatial development plans) have an impact on spatial management and spatial structure. They cause changes in the spatial structure, intensiveness of spatial use and the function of space.

The aim of this article is to demonstrate that important administrative decisions result in changes in spatial management and spatial structure and that they can be considered as part of the development process of suburban areas. This process results mostly from migration and investment on the outskirts of cities.

Keywords: land use, city growth, local spatial policy, sustainable development, urban sprawl

THE CITY AND ITS OUTSKIRTS – RELATIONS BETWEEN, SPECIFIC CHARACTER OF CITY OUTSKIRTS

Cities have a strong impact on suburban area development in the economic, social and spatial spheres. Many former citizens migrate to the city outskirts, where they live, but they still work in the city and use its facilities. Migration and investments which are set in the city outskirts lead to changes in the economic, social and spatial structure.

As a result of suburbanization there is a decline in the previous discrepancy in population and employment densities between the inner urban and surrounding areas. Previously rural areas as large as counties are also becoming more “urban” statistically, while the urban life style is in any case dominant. Dispersed settlement is also brought about by land price differences, growing motorization and the extension of the road infrastructure (Mading 1998).

Changes in economic, social and spatial structure simply cannot be considered without looking at the problem of migration. It has become a trend for “middle class families” to leave the inner city with a demand to look for new areas for living in. By preference, they look for areas of single family housing in areas surrounding a city.

That is why suburbanization as a process results in changes to the city outskirts. In the outskirts of the city, formerly rural areas lose their function to become urban, more multifunctional areas of dynamic development. They are more adapted to the circumstances and consequences of city growth.

For this reason it became a challenge to create a local spatial policy in accordance with the needs of sustainable development. In fact most of the changes in the outskirts of a city consider spatial and land use structure. Suburbanisation may even lead to unfavourable effects such as urban sprawl. Urban sprawl is a process of spreading of a built-up area deep into a rural area. It is often dynamic and chaotic and has nothing to do with sustainability. As shown in figure 1, the urban areas spread around the city close to main roads. That means that only well-integrated areas of city surroundings develop while others are omitted by urbanisation process.

To counteract the unfavourable effects of suburbanization, municipalities create their spatial policy using different instruments, including land use plans, land use studies and administrative decisions.

ADMINISTRATIVE DECISIONS AS INSTRUMENTS CREATING SPATIAL POLICY

As municipalities are responsible for creating spatial policy in a community, they use different ways of creating spatial policy in accordance with the needs of sustainable development.

The main instrument used by municipalities is a land use plan which has been made local law – permissive, advisory, precise and inhibitory. A land use plan is a document of rules for changing the spatial structure made for large areas. It gives areas an array of possible functions, parameters of land parcels, parameters of housing and many more. It is a basis for creating sustainable development and the best means of bringing about changes in spatial structure.

Even though a land use plan is considered the main instrument for creating spatial policy, there are other, optional instruments. These might be used when the predicted change does not concern a large area of the community (it might concern only one or a few plots) or is a consequence of the land use plan.

These instruments are:

- Administrative decisions on real estate divisions



Fig. 1. Urban sprawl – an example (Raiborde 2006)

- Administrative decisions on conditions of localisation of new investments.

The first is in most cases only a consequence of actions and decisions made in land use plans, or decisions on the conditions for the localisation of new investments. As an instrument it is used to adapt an area to the circumstances given in a plan or a particular decision. The adaptation often involves changes in the size of plots and leads to their division. Division is necessary to make the plot more adapted to its new function.

The second instrument used by municipalities involves changes in usufruct of only one plot where there is no land use plan made for the area. It provides the context and conditions for housing and other investments which cannot wait for the creation of a new land use plan. Administrative decisions on the conditions for the localisation of new investments cannot change the function but, in

fact, they have an impact on spatial structure by changing the usufruct of a plot of land.

The impact of administrative decisions as instruments of creating spatial policy can be shown by looking at the example of the Stawiguda district.

It is a part of the outskirts of Olsztyn – a city in the Warmia and Mazury region, situated in North Poland. The range of the suburbs of Olsztyn stretches about 20 km from its administrative boundaries. The districts which are most influenced by the city are: Dywity, Stawiguda, Jonkowo, Purda and Wójtowo – the land in their administrative boundaries create the suburban area.

Stawiguda district as a part of the suburban area of Olsztyn might be characterized by such parameters as area, the size of the population and its density, or the number of villages. The main parameters are listed as follows:

- Area of the district – 22 287 ha.
- It consists of 13 villages.
- Population of the district 5,533 (2008), about 5% of the population of a district.
- Population density of 25 inhabitants/km² (www.stawiguda.com.pl).

The municipality has to face the problem of suburbanisation, as Stawiguda district is situated in the area surrounding Olsztyn. Many instruments are used to avoid the unfavourable effects of these processes, including land use plans and administrative decisions, which are under consideration in this research.

To illustrate the scale of use of these instruments, data from this district was compared with data from the entire country. Table 1 shows the number of decisions on investment localisation in the period from 2005 to 2008. It transpires that the municipality of Stawiguda uses both decisions of public investment localisation and decisions on building restrictions as instruments for creating spatial structure. While decisions on public investment are given more often than average figures for the country, decisions on building restrictions are instruments used rarely in comparison with the situation across the country. It means that in the case of Stawiguda decisions on building restrictions are not the kind of instrument which may be a substitute for a land use plan. It is also promising that decisions which consider public investment such as infrastructure and public facilities appears as one of the main instruments of spatial changing in the context of the growing development of Stawiguda.

These two kinds of instruments do not complete the list of instruments used in Stawiguda district. Table 2 shows the number of plots which resulted from divisions and the area that was divided.

Analysis showed that most of the changes caused by divisions took place in 2007. Both the area of land divided and the number of new plots have the highest values. On the contrary, the next year was the least 'productive' but what we

Table 1. The number of decisions on public investment localization and building restrictions from 2005 to 2008 (Wolny 2010)

Specification	Values in the period of research			
	2005	2006	2007	2008
	number	number	number	number
	total in Poland			
	30 048	26 360	24 991	26 943
	on average per district			
Decision of public investment localisation	12	11	10	11
	in Stawiguda district			
	22	21	21	29
	total in Poland			
	167 859	179 774	176 640	174 942
	on average per district			
Decision on building circumstances	68	73	71	71
	in Stawiguda district			
	72	67	97	49

Table 2. The number of decisions on real estate divisions in the period from 2005 to 2008 (Wolny 2010)

Specification	Values in the period of research							
	2005		2006		2007		2008	
	Area [ha]	Number of plots	Area [ha]	Number of plots	Area [ha]	Number of plots	Area [ha]	Number of plots
total	125,16	476	133,866	234	873,057	500	42,136	225

must consider is the fact that some of the divisions started as processes in 2008 and were finalized in 2009.

In most cases the divisions were direct consequences of directions given in land use plans, some of them were consequences of decisions on the localization of new investments. They were simply a part of a program introduced by the municipality in the sphere of spatial policy.

CHANGES IN LAND USE STRUCTURE AS A RESULT OF ADMINISTRATIVE DECISIONS

As was mentioned above, decisions on real estate divisions as decisions of public investment localization and building restrictions are used in creating and implementing spatial policy in Stawiguda district. They can result in changes of spatial structure, land use intensity and function of the land.

An analysis of the spatial outcomes of decisions given in a district was a part of the research in the period from 2004 to 2008. As a result of decisions of public investment localization and building restrictions about 300 plots changed their use or function. Figure 2 illustrates the share of some of the purposes which appeared most often.

As shown by the research, we may conclude that every year more than 60% of changes are related to the investment process, particularly residential homes and farm buildings. About a 5% share goes to commercial and industrial

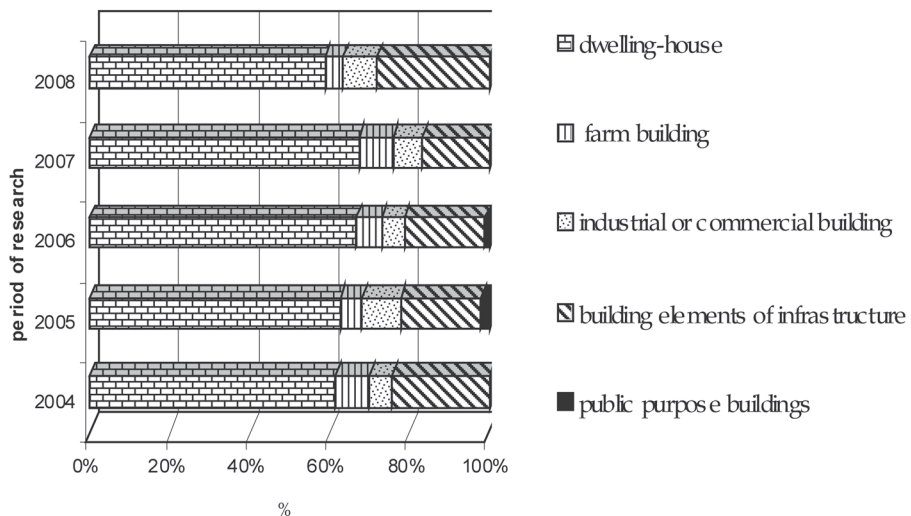


Fig. 2. Change of use as a result of decisions of public investment localization and building restrictions in the period from 2004 to 2008 (Wolny 2010)

building. More than 20% is related to technical infrastructure. This means that the changes made in spatial structure by those instruments are parts of a process which is a response to the growing migration from the city to its outskirts. This brings us to the conclusion that those changes resulted from the needs of the local community.

However, other instruments were also taken into consideration in the research. Changes in land use structure are most visible where there is growing land use intensity. For this reason the effects of the decisions on real estate divisions were analysed.

Most of the divisions, about 70–80%, were direct consequences of land use plans, less than 10% of divisions took place as a result of border regulation and less than 5% were consequences of changes in possession.

More detailed analysis shows that new parcels resulting from divisions are adapted to their new functions and changed formally in land use plans. There is a large group designated for housing, besides that, there are areas adapted for transport, infrastructure and amenities. In accordance with the principal of creating sustainable development there are also rural areas, and forests. Divisions of real estate show how space is changed and adapted due to local spatial policy. Figure 3 illustrates the share of the functions in divided areas from 2004 to 2008.

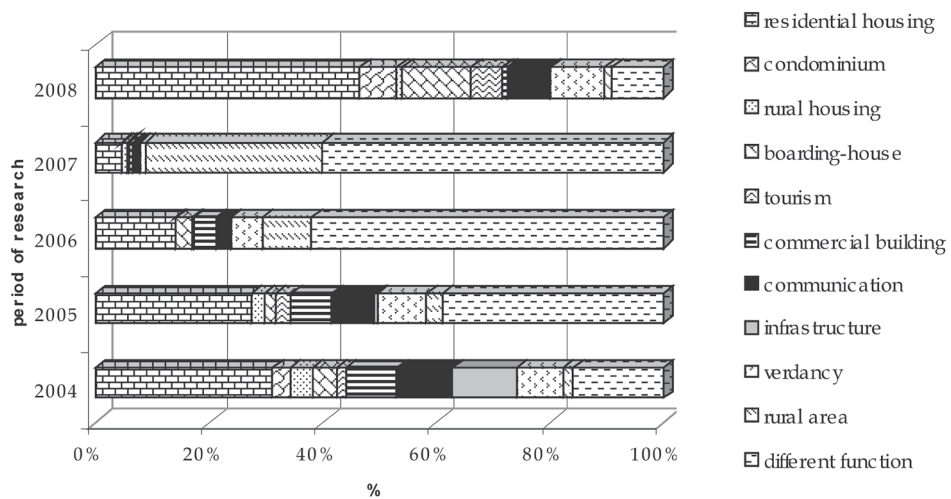


Fig. 3. Area divided – the most common functions of land in the period from 2004 to 2008 (Wolny 2010)

THE ANALYSIS OF SPATIAL RESULTS – CONCLUSION.

The analysis showed municipalities try to avoid the problems of suburbanization by using the most common and appropriate instruments. Even though the aspect of creating sustainable development is challenging and demanding, they make an effort to create real sustainability.

Districts which are situated in city outskirts should create their sustainable development by developing strategies, spatial policy and spatial studies. The main purpose is to get the right proportion of rural and urban areas in city outskirts.

Administrative decisions as instruments of realization cause changes in spatial structure, but they should be used only when it is a part or a consequence of a local spatial policy.

However Stawiguda district, in comparison with other districts, does much to create sustainable development in response to the needs of the local community, and to encourage potential investors. As a result we have more land given to housing, infrastructure and amenities.

Yet the research showed that rapid changes caused by suburbanization may lead to urban sprawl and extensive use of land. That is why a tool should be created which might hasten and simplify the realization of spatial policy.

Much research has been written about spatial information systems and, as the analysis shows, there must be a part of it which considers the spatial results of land use plans, but also optional instruments such as administrative decisions. The next stage of the analysis should be to illustrate the results on prepared maps in order to determine the extent of the changes.

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ZMIANY W STRUKTURZE ZAGOSPODAROWANIA OBRZEŻY MIAST NA PODSTAWIE DECYZJI WYDAWANYCH PRZEZ ADMINISTRACJĘ LOKALNĄ

Streszczenie

Dynamiczny rozwój osadnictwa wokół miast doprowadził do zmian w zagospodarowaniu przestrzeni oraz struktury przestrzennej obszarów podmiejskich. Miasta mają silny wpływ na rozwój obszarów podmiejskich w sferze gospodarczej, społecznej czy przestrzennej. Stworzenie lokalnej polityki przestrzennej, odpowiadającej na potrzeby zrównoważonego rozwoju, stało się prawdziwym wyzwaniem.

Ignorowanie problemów związanych z rozwojem obszarów podmiejskich może doprowadzić do niepożądanych rezultatów takich jak rozległe przedmieścia (urban sprawl). Z tego powodu gminy tworzą politykę przestrzenną z wykorzystaniem różnych instrumentów, w tym decyzji administracyjnych. Decyzje związane z warunkami zabudowy oraz podziałami nieruchomości (zwłaszcza tymi, które powstają w wyniku planów zagospodarowania przestrzeni) mają wpływ na zagospodarowanie przestrzeni oraz strukturę przestrzenną. Powodują zmiany w strukturze przestrzennej, intensywności zagospodarowania przestrzeni oraz funkcji przestrzeni.

Celem niniejszego artykułu jest pokazanie, iż decyzje administracyjne pociągają za sobą zmiany w zagospodarowaniu przestrzeni i strukturze przestrzennej i że można je uznać za część procesu rozwoju przedmieść. Proces ten wynika głównie z migracji oraz inwestycji toczących się na obrzeżach miast.