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PHYSICAL PLANNING AS A PART OF SPATIAL DEVELOPMENT MANAGEMENT

The objective of this paper is to assess the advance of planning works in the area of Podlaskie voivodship (Poland). The level of covering districts by local land development plans at the end of 2010 was determined. The assessment was done on the basis of binding and proposed plans. While assessing we use an essential indicator of demanded covering on account of the use intensity and the amount of existing functions.

Keywords: local land development plans, spatial order, metropolitan areas, transportation corridors.

Славоміра Гайдук

ТЕРИТОРІАЛЬНЕ ПЛАНУВАННЯ ЯК ЧАСТИНА УПРАВЛІННЯ ПРОСТОРОВИМ РОЗВИТКОМ

У статті оцінено розвиток територіального планування в Підляському воєводстві (Польща). Визначено рівень охоплення районів планами розвитку місцевих земель наприкінці 2010 року. Оцінювання проведено на основі обов'язкових до виконання і пропонуваніх планів. При цьому використано ключовий показник норм виконання за рахунок інтенсивності використання та кількості існуючих функцій.

Ключові слова: плани розвитку місцевих земель, просторовий порядок, міські агломерації, транспортні коридори.

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Славомира Гайдук

ТЕРРИТОРИАЛЬНОЕ ПЛАНИРОВАНИЕ КАК ЧАСТЬ УПРАВЛЕНИЯ ПРОСТРАНСТВЕННЫМ РАЗВИТИЕМ

В статье оценено развитие территориального планирования в Подляшском воеводстве (Польша). Определен уровень охвата районов планами развития местных земель в конце 2010 года. Оценка проведена на основе обязательных к исполнению и предлагаемых планов. При этом использован ключевой показатель норм выполнения за счет интенсивности использования и количества существующих функций.

Ключевые слова: планы развития местных земель, пространственный порядок, городские агломерации, транспортные коридоры.

Introduction. Municipal government may achieve sustainable spatial development by organizing its planning, and mainly by the development of local spatial development plans. A clear legal situation in the management of plots of land may be a magnet attracting investors to Podlaskie voivodship. It is advantageous not only from the point of view of investors, but also citizens, because spatial order enhances landscape features. Local plans can promote the efficient implementation of investments and significantly reduce the possibility of spatial conflicts and local community protests. The type and intensity of use of municipalities should have impact on the state of planning works. Areas with increased construction activity associated with the

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construction of roads, development of suburban areas and the dispersion of buildings, as well as tourist development projects should largely be covered by local land use plans. The investment pressure causes many planning conflicts, which are not conducive to sustainable development of municipality.

The assessment of coverage by local land development plans can be based on the statements included in the study of determinants and directions of spatial order or dependently on real needs of a particular area. This situation is considered on account of the amount of functions existing in a particular district.

The objective of this paper is to assess the planning works in Podlaskie voivodship. That is why we determined the level of covering districts by local land development plans at the end of 2010. The assessment was done on the basis of binding and proposed plans. While assessing we used an essential indicator of demanded covering on account of the use intensity and the amount of existing functions.

Characteristics of the research unit. The analysis covered 118 districts, among them: 82 village districts, 23 village-towns, 10 towns and 3 towns with the right of a county. The area of the voivodship is 20 187 km², and it has 1 197 ths habitants. In the period 1997-2010 the decrease in the amount of habitants by 2,7% was observed. Low population density (59,2 habitants/1 km²), ranks Podlasie voivodship on the one of the last places in Poland. From 2008 to 2010 about 11 965 apartments were given to the use. In this voivodship on average 75 economic units per 1000 habitants and 0,92 accommodation places exist.

Through Podlasie region runs a section of the national expressway No. S-8 Warsaw-Bialystok-Augustow-Suwalki-Budzisko-Lithuanian border, which lies in the first pan-European transport corridor and marked in the international system as No. E-67, called "ViaBaltica".

A line of European significance is also the E26 railway Warsaw-Bialystok-Belarusian border, which extends mostly in the first trans-European corridor as well and the Warsaw-Bialystok-Sokolka-Suwalki-Trakiszki-Lithuanian border railway line, marked in international system No. 75, called "Rail Baltica".

The city of Bialystok is one of 12 metropolian cities in Poland. In the region of Podlasie there are 2 more cities with county rights - Lomza and Suwalki.

State of planning works in the districts of Podlaskie voivodship.

At the end of 2010, most municipalities of Podlaskie voivodship had current municipal studies. 3 municipalities did not have municipal study, but it was in the process of preparation. These communities were Nowy Dwor, Bialowieza and Nowinka. In 25 municipalities the planning document was undergoing changes. In 7 municipalities the study had the digital form.

According to the records of municipal studies in the Podlaskie voivodship, the projected area to be covered by local plans at the end of 2010 amounts to 4,1 ths km², which is 20,3% of the voivodship. Of that amount, 66,9% fall on the local plans and the remaining part is optional plans.

At the end of 2010 there were 922 binding local land development plans, among them 327 were passed by the Act on 27 March 2003 about planning and land development. The plans covered the area of 286 841 ha. The indicator of covering by plans for Podlaskie voivodship is 14,2%. The proposed plans cover only 46 891 ha, which equals

to 2,3% of the voivodship area. The average size of a single plan is 311 ha. The proposed plans involve a smaller area, and the average size is 227,5 ha. On average, one municipality in the voivodship has 8 plans and 2 more in preparation. Most local plans are prepared in "paper" form. Only 16% are digitized.

14 districts were characterised by 100% coverage by plans, but in 33 ones there are no plans at all. The best situation is in the districts of Choroszcz, Plaska, Goniadz and Sejny (Figure 1). The shortage of coverage with local plans affect about 1716 ths ha. The weakest planning situation characterizes the municipalities located on the East of the region, especially near the border with Belarus (e.g. Szudzialowo, Krynki) as well as on the West, near the border with Mazovia province (e.g., Turosl, Zbojna and Maly Plock). Many local municipalities located in the center do not conduct any works on developing local plans (Suchowola, Janow, Jasionowka, Knyszyn, Krypno, Jedwabne, Przytuly, Zawada, Poswietne, Suraz, Nowe Piekтуры). The South of the region is also characterized by some lack of local plans. It applies to municipalities of Czyze, Orla, Wyszki, Bocki, Milejczyce, Dziadkowice, Nurzec Stacja.

The range and research methodology. In economical-spatial research and district delimitation we used the electronic database of the Central Statistical Office (GUS) gathered in the period of 1997-2010. On the level of districts there was done the analysis of chosen features and delimitation of areas of different covering by local development plans. The results of this analysis and delimitations are shown in tables. The priority areas are the districts, which by many reasons are characterised by intensive use, human activity and investment movement. For research we take 7 independent variables used to distinguish priority districts. These values include:

- population density in 2010;
- location within metropolitan areas and urban complexes;
- location within transportation corridors;
- number of accommodation places per 100 habitants in 2010;
- number of apartments given to the use in the period of 2007-2010 per 1000 habitants;
- number of economic units per 1000 habitants in 2010;
- change of population number in 1997-2010, %.

The comparison of features and values ranges appropriate to these features is shown in Table 1.

Later, we took into assumption different safe levels of covering by local land development plans which allow running proper management fulfilling investment needs and spatial order. It was assumed that there would be:

- full covering by local plans if there were at least 4 mentioned above features;
- at least 50% covering by local plans, if there occurred 2 mentioned above features;
- at least 35% covering of local plans, if there occurred 1 mentioned features;
- at least 20% covering of local plans, if there was no feature mentioned above.

Later, there was done the comparison of determined levels of demanded covering with the real binding state and also with the state, which will be reached in 1-2 years after passing the proposed documents. Then we determined the gaps in coverage by local plans in particular districts of Podlaskie voivodship.



Source: Own work on the basis of Local Database Bank of GUS, http://www.stat.gov.pl/bdl/app/dane_pod-grup.dims?p_id=451213&p_token=0.41692337004893665.

Figure 1. Rating municipalities coverage by local plans, Podlaskie voivodship, the end of 2010

Table 1. Features and values ranges of these features

Feature	Values ranges
population density	over 300 habitants/1 km ²
location within metropolitan areas and urban complexes	the first strip of districts in direct neighbourhood with the town of Bialystok
location within transportation corridors	the first strip of districts neighbouring with S-8 transportation corridor
number of accommodation places	over 5 accommodation places/100 habitants
number of apartments given to use	over 8 apartments;
number of economic units	over 100 economic units/1000 habitants
change of population number	over ± 13 %

Source: Own work.

The results of delimitation of Podlaskie voivodship.

The most frequently covered (5 times) are features in the town of Bialystok and Suwalki, 4 times - the districts of Wasilkow, Suwalki and Bialowieza and the towns Augustow and Lomza. In 42 districts there occurred no mentioned features. This concerns the districts of Kolnenski, Wysoko Mazowiecki, Grajewski i Moniecki counties. The comparison of the number of features and appropriate number of districts in division by kinds is shown in Table 2.

Table 2. Number of features and districts of Podlaskie voivodship

	Number of districts			
	town	town-village	village	total
5 features	2	0	0	2
4 features	2	1	2	5
3 features	1	2	4	7
2 features	1	1	10	12
1 feature	6	9	35	50
0 feature	1	10	31	42

Source: Own work.

In all town districts, except Bransk, the population density exceeds 300 habitants/1 km². Almost in all districts of Hajnowski, Bielski i Siemiatycki counties depopulation reaching 13% was observed. The increase of population over 13% was registered in metropolitan area of Bialystok, including Choroszcz, Juchnowiec Koscielny, Suprasl and Wasilkow. In the district of Bialowieza, Plaska and the town of Bialystok, Suwalki, Lomza and Wysokie Mazowieckie function 100 economic units. Most apartments were given to the use in the districts directly neighbouring Bialystok, which is connected with the process of chaotic spread of residential housing into suburban areas. In the district of Bialowieza, Nowinka, Plaska, Rajgrad, Goniadz, Giby, Suwalki, Szypliszki and the town of Augustow there exist 5 accommodation places. The comparison of the kinds of features and appropriate number of districts of Podlaskie voivodship is shown in Table 3.

Summary of researches. Only 17 districts have satisfying planning situation (22% for Poland) , while in the case of passing of proposed plans, this factor will increase only by 16,9%. This situation will concern the town-village districts of Ciechanowiec and Drohiczyn, the village district of Wysokie Mazowieckie. Especially worrying is that these indicators are much worse in urban centres than in the village ones. 53,8% of town districts are characterised by "bad" and "very bad" coverage by local plans,

while this situation concerns 50% of village districts. The most important conclusions are gathered in Table 4. Those plans which are now being proposed, only to small extent, will improve the situation of the districts in the "very good" category.

Table 3. Comparison of the kinds of features and number of districts of Podlaskie voivodship

	Number of districts			
	town	town-village	village	total
Population density	12	0	0	12
Location within metropolitan areas and urban complexes	3	4	8	15
Location within transportation corridors	4	5	13	22
Number of accommodation places	1	2	6	9
Number of apartments given to use	5	5	18	28
Number of economic units	4	0	2	6
Change of population number	0	5	28	33

Source: Own work.

Table 4. Basic information about the assessment of covering by plans of the districts in Podlaskie voivodship at the end of 2010

	Number of districts									
	town		town-village		village		total			
	A	B	A	B	A	B	A	A [%]	B	B [%]
very good	4	4	5	7	8	9	17	14,4	20	16,9
good	1	1	7	6	29	29	37	31,4	36	30,5
medium	1	2	0	0	4	4	5	4,2	6	5,1
bad	3	3	9	8	37	36	49	41,5	47	39,8
very bad	4	3	2	2	4	4	10	8,5	9	7,6
total	13	13	23	23	82	82	118	100,0	118	100,0

A – Assessment on the basis of binding plans.

B - Assessment on the basis of binding and proposed plans.

Source: Own work on the basis of Local Database Bank of GUS, http://www.stat.gov.pl/bdl/app/dane_podgrup.dims?p_id=451213&p_token=0.41692337004893665.

Extremely worrying is that almost 50% of the districts in Podlaskie voivodship is characterised by "bad" and "very bad" covering by plans (36,5% for Poland). However, in the case of those plans which are now being proposed, this indicator will decrease only by 2,6 percentage points to 47,4% (Figure 2).

Final comments and conclusions. Current situation within the range of planning works can create essential barrier to development in many areas of Podlaskie voivodship. The reasons of this situation are:

- the lack of local plans in many districts;
- low extent of covering in the regions of current investment activity;
- fragmented covering by local plans;
- issuing many development orders.

Activities taken by many local government units in preparing of planning documents should be assessed negatively. This situation makes difficult the reasonable localisation of new investments and can cause spatial chaos and degradation of nature and landscape amenities of Podlaskie voivodship.

Issuing many development orders and planning permission prepared only on the basis of little precise local studies and old local plans, which are inappropriate to current situation, can cause excessive discretion and violating binding law. These plans contain very general regulations and introduce the exceptions to the ban on building allowing households proprietors to locate building complexes. It allows evading the ban on building through buying and lease of agricultural properties. This situation took place mainly on natural and landscape attractive areas of Wigierski National Park, Suwalski Landscape Park, Rajgrad Lake District. Violating the law and conditions accompanying these activities indicate the possibility for corruption. Threats and development limits accumulate mainly on the areas which develop most dynamically. It concerns the suburban districts and those located along the transportation corridors. They are characterised by intensive process of habitants' inflow and chaotic spread of commercial and residential housing. It results in the increase of prices for ground properties, it threatens to slow down investments, not to benefit from European structural funds and can cause unfounded protests against road building.

The lack of local plans can deepen the chaos in spatial order and cause the barrier for development of Podlaskie voivodship. That is why it is essential to:

- introduce by district councils the obligation of passing plans of land purpose covering the whole area of a district and stating the basis of issuing localisation decisions;
- determine precisely a catalogue of orders and bans, which can be introduced in local plans;
- intensify the works on preparing new local plans;
- eliminate the cases of issuing decisions contrary to legislation.

Spatial conflicts often occur in suburban areas of large towns and cities. They focus most planning problems and irregularities on their territory. They are accompanied by a dynamic growth of investment pressure, resulting in a high rate of land decultivation.

Spatial planning at the municipal level is extremely important for socio-economic and ecological growth. Local plans promote the smooth implementation of investments and reduces the possibility of spatial conflicts and social protests. The existence of local plans helps to maintain the spatial order. In these planning studies, land for housing is reserved and infrastructure investments are planned.

Spatial conflicts in the communities of Podlaskie voivodship generally concern the difficulties with maintaining a minimal biologically active area, minimal size of a plot, and distance from waterways and forests walls. Often the problems are related to the realization of individual tourist and recreation buildings, construction of single-family houses, in particular in the areas adjacent to the areas of legally protected nature. This affects the risk of future adverse development and management of protected landscape areas, resulting in lowering the attractiveness of these areas.

There are occurrences of collisions of buildings in flood plains, forest areas, organic lands, with existing drainage ditches and high greenery. The difficulties relate to the class of soil that require the change of use to non-agricultural and non-forest.

Some municipalities have noticed the need to create local plans themselves, as it helps them to carry out planning and spatial policy. Discretion is lower and decision-

making is easier. Conflicts rarely occur, since they are settled at the stage of establishing the plan with the nature conservator, conservator of monuments, and park management.

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