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MAPS OF LAND VALUES

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Abstract: In the paper is presented character of contents and form of polish cartographic elaborations in the new conditions.

Keywords: Maps of lands values, land immovables, cartographic presentation.

1 Introduction

After policy changes in countries of Central and Eastern Europe, a new of maps appears in the collection of thematic maps - maps of land values. The land in the market economy, that means this part of land area, which is fitted under cultivation or to use by building engineering as foundation, is a goods and has value depends from many natural, social, lawful and economic factors and therefore is variable value in time as well as in space. The spatial distribution of lands values in the specified moment or period, can be presented in cartographic form.

2 Map content of land values

The content of maps of land values is very often land value of 1 m² with definite property and appropriation expressed as money units. The value of land is defined in many different ways in the lecture and has different interpretations. Generally there is possible to notice that market value of land is shown in two forms:.

- in primary form as exchangeable value (market value), it means transaction price on free immovable market,
- in secondary form as valuation by experts for special aims e.g.:
 - lands values of external use which belong to the State Treasury or communal lands (which are property of community),
 - estimate value of land which are base of tax assessment from immovable,
 - average value which is a base of the bank credit guarantee.

The value of land defined for any of above shown aims, refers always to plot with define technical attribute and juridical. To the main attributes belong:

- appropriation of parcel in Plan of Land Use,
- way of management and neighbourhood,
- form and size of parcel,
- soil conditions as well geotechnical and natural ones,
- legal status of immovable,
- expansion possibility of immovable,
- data of settlement value.

Considering on detailed level of content thematic maps, value is subdivided on:

- **document maps**, which present land value in place and in the time when this value was disclose,

- **review maps**, which present land value estimated for special aims after transformation source information (see chapter 4).

In the Federal Republic of Germany, in the country with long time experience in market economy in popular using is a map of approximation land value (Bodenrichtwertkarte) which is being prepared every year for each unit of administrative subdivision all community countries. Approximation land value is defined as average value of 1 m² of parcel in special unbuild zone with special appropriation and price, which can be got from free market of immovable in define moment - usually at the end of the calendar year. Value of land on the map is defined as fraction

$$\frac{\text{reception of value 1 m}^2 \text{ of land in money unit}}{\text{attributs of price creation of land immovables}}$$

3 Sources of information

The main information sources about value of land are authenticated deeds which describe transactions of many immovable property. The following types of transactions we can meet on polish market:

- buy-sale of immovable,
- land transfer for external use,
- sale of law to external use of land,
- donation,
- exchange and others.

In each of above types of transaction the same land parcel can accomplish different prices. A very deep penetrate analysis of each transaction is indispensable as well as subdivision of immovable market additionally on segments distinguish by type transaction.

The following materials (in the order of their usefulness) are included among the supplementary source materials:

- fixing of the prices for particular land immovable execute by experts for special aims,
- sale offers of immovable published in press and accessible by property agencies,
- information collection by chambers of treasures.

The cadastral and detailed maps of location-high with geodesic take stock of underground equipment are cartographic source materials which are necessary to make analysis of economic information.

4 The ways of cartographic presentation of land value

Information about land value are presented on the maps usually by three methods:

- method of point signatures,
- method of ranges,
- method of isolines.

In the method of point signature value of land refers to the point marked on the map or to the nearest environment. This method is used usually to prepare the document maps of exchange land value. It is possible also to use this method to create the maps of other values in case there are lot of information for our disposal.

In the range methods value of land refers to the zone, which borders are drafted on the map. The scope and size of zone depends on:

- exchangeability of way to the land management,
- aims and appropriations, for which the map was prepared,
- exchangeability of level of land value.

The zones ranges of land values are prepared usually by experts at the base analysis of information database from local market of immovable. The average values of lands in object zone estimated for special aims are usually presented by the method of ranges. The zones borders of land values should cover immovable borders.

The isoline method presents only evaluation of value, selected category of lands with definite destination. This is a result of the assumption that presented land value is permanent and homogenous effect on the tested area. The preparing of isoval maps (lines of the same price of land) requires many complicated procedures to transform of sources information to be used.

5 Form maps of land value

The external form of maps of land value is determined by:

- aim and destination of maps,
- scale and content of base map,
- received method of cartographic presentation.

The cadastral maps are the most often used base material. Topographic maps, city plans or special prepared base maps with selected elements of general geographic content are being used as well.

For document maps of lands value the best base are cadastral maps, city plans or special prepared base maps with selected elements of general geographic content are being used as well.

For document maps of lands value the best base are cadastral maps in scale 1:500 to 1:5000. For maps of estimate land value the most often are used topographic maps in scale 1:10 000 to 1:100 000, city plans in scale 1:15 000 to 1:30 000 or review maps of big units of country territorial subdivision in scale 1:50 000 to 1:500 000.

6 Appropriation of land value maps

Maps of land values are used in many domains.

The most often they are being used:

- in economy of treasure and communal lands,
- by treasure and financial state and economy,
- in planning of land use,
- for evaluating immovable for different aims.

The aims and destination of prepared maps determine their contents and form.

7 Conclusion

The maps of land value are in economy market important element of environment of immovable market. They are the picture of one of this market segment and in this meaning they accomplish illustrate role, they are also a basic source material and the work equipment for specialist of many different domains of economy and state administration and autonomy.

In the polish conditions, in phase of deep transformation of policy there is lack precisely determined norms of preparing such maps, also there are no good domestic patterns. Presented systematic idea connected with maps of land values simultaneously defines area

of investigation, which aims should be the elaboration of ~~various~~ methods for getting information about immovable market, transformation of this data and their standardisation and good choice of the method of cartographic presentation of his data.

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S u m m a r y

Mapy oceňovania pozemkov

Po zmenách v zriadení štátov strednej a východnej Európy sa v skupine tematických máp objavuje nový druh máp - mapy oceňovania pozemkov. V trhovom hospodárstve je pozemok (tá časť povrchu Zeme, ktorá podlieha obrábaniu, resp. využívaniu na stavebné účely ako základ prác) tovarom, ktorý má svoju cenu, resp. hodnotu. Cena pozemku je závislá od viacerých prírodných, spoločenských, právnych i ekonomických faktorov, a preto jej výška je premenlivá v čase a v priestore. Predmetné priestorové rozloženie ceny pozemkov v danom momente a etape možno predstaviť v kartografickej forme.

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