

Development of Land Value Maps with the Use of Geostatistical Methods

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SUMMARY

Land value maps are most often seen in the context of mass appraisals for tax purposes. However, the complexity of real estate management processes requires a different view of the usefulness of value maps, which do not always need to be created under regulatory pressure. The paper presents a concept of how to prepare maps of land value, which can be used primarily for utilitarian purposes other than tax purposes. The presented methods use mainly geostatistical methods (kriging and cokriging). During the research both factors directly related to location (distances from characteristic places) and non-spatial factors (e.g. shape of the plot) were taken into account.

The basic problem is the selection of an appropriate method of spatial interpolation of transactional prices in conditions of uneven data dispersion. The research included comparative analyses of various kriging techniques (ordinary kriging, universal kriging, simple kriging) and their advantages and disadvantages. The problem of discrete changes in the value of urban space depending on the planning function was also pointed out. Within the framework of the research both the theoretical concept and the effect of elaboration in the form of maps of land values for the area of the city of Olsztyn located in the north-eastern part of Poland were presented.

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