

Cadastral Data Modernisation in the Land Management Process

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SUMMARY

Interest in issues related to the consistency of cadastral data in documents with field (terrain) is a consequence of the data being used in many economic processes and in land management. It has a crucial impact on an increase in consumer trust and on the quality of decisions taken. The technical reliability of cadastral data is also a condition of the legal security of boundaries. Therefore, regular updates of cadastral data is of key importance in planned investment processes. Many entities that gather and share cadastral data strive to improve their quality. Discrepancies between data gathered in the cadaster and the field are caused by various factors. They include: (a) ambiguous definitions of individual groups of land use, (b) the multitude of land-use types within individual groups, which makes their interpretation difficult, (c) changes in the regulations on classification of individual groups, (d) changes of qualification of objects which have to be disclosed in cadastral data, (e) required accuracy of data entries, and (f) failure to report the changes by real estate owners, (g) high cost of the plot boundaries inventory in the field, (i) the duration of the measurement process.

This study aimed to analyze cadastral data concerning coherence between the document data and the field. The comparison concerned the plot size, boundaries of land use areas, and their types. The study area covers five villages in the rural part of the commune of Łomża. It is situated in the Podlaskie Voivodship, in the northeast of Poland. The size of 2,439 plots and the methods of use within those plots were compared.

The results of the analysis showed that the changes in the plot area between the documents and the condition on the ground fluctuate from 5 to 58%. The rest of the examined indicators also show a significant deviation. It indicates that a cadastral data upgrade process is desired. Modern measurement technologies should have a positive impact on the high cost of the plot boundaries inventory in the field and the duration of the measurement process.