



SELECTED PROBLEMS OF LAW DETERMINING THE EXTENT AND TYPES OF LAND USES

Piotr Benduch

AGH University of Science and Technology

Abstract

Land use is the part of the earth's surface that is used in a uniform manner. The information on the extent and type of land uses is entered into the register of land and buildings. The data contained in this register are the standardized descriptions of the physical characteristics of the objects in question. Pursuant to the applicable legislation, these data should be kept up-to-date through the processes of updating, modernization and periodic verification of the records. The implementation of the said processes often requires the introduction of land use changes. These changes bring about important consequences, especially in land taxation.

This paper is an attempt to outline the basic problems related to the determination of the extent and type of land uses. It discusses, inter alia, the issues of limitations resulting from the plans of forest management and the area permitted to be excluded free of charge from agricultural and forestry production for housing purposes. The author also draws attention to the very general legal regulations regarding the determination of the boundaries of the contours of land use zones in rural and urban areas. The conducted studies also include the analysis of the updatedness of the cadastral data on land uses in selected municipalities.

Keywords: register of land and buildings, updating, land use, extent of land use, type of land use

INTRODUCTION

The leading object of the register of land and buildings, hereinafter also referred to as the cadastre, is a record parcel. Its area consists of land uses that allow for classifying the grounds according to their development. The spatial data records regarding the actual land use are mainly intended for the taxation purposes (Act 1984b, Act 1991a, Act 2002). In addition, they are used for statistical purposes (Regulation 2001). In certain cases, the data on the extent and types of land uses may significantly affect the course of the property subdivision procedure (Act 1997). Land uses and the process of their updating also form the basis for the management and agricultural surveying, shaping the spatial structure of rural areas (Konieczna 2012).

Thus, the scope of using the data on land uses is very extensive. It is important that these data are kept up-to-date and their capture should ensure adequate accuracy and reliability. Unfortunately, this demand is not always met. For this reason, it was decided to comprehensively examine the most essential problems related to the procedure of determining the extent and types of land use zones. It was noted that the current legislation is too vague in this respect. The author also identified the processes causing changes in land use zoning and presented the procedure for recording this information in the cadastral database as well as the resulting consequences. Finally, on the basis of the selected example, a simplified evaluation of the updatedness of the data on land uses entered into the register of land and buildings was carried out.

RECORDS OF THE DATA ON LAND USES IN THE CADASTRE

The issue of running the cadastre is regulated by the Geodetic and Cartographic Law (Act 1989), hereinafter abbreviated as GCL, and its secondary legislation, i.e. the Regulation on the land and buildings register (Regulation 2001), hereinafter abbreviated as RLBR. The necessity of recording the data on land uses follows directly from article 20 section 1 of GCL, which provides that the cadastre includes information on the types of land uses. Keeping these data updated is possible through the implementation of following processes: current updating, comprehensive modernization and periodic verification of the cadastral database. Any changes to the record data can be entered through substantive technical proceedings or an administrative decision (Act 1989), especially when the update of the land register survey requires the provision of explanations by the interested parties or any additional evidence.

Pursuant to § 66 of RLBR, the cadastral data relating to land uses include:

1. numerical description of the contours of land uses,

2. denotations of land uses within specific contours and the numbers of these contours.

The legislator does not specify the method for carrying out the numerical description of land use contours. The regulations relating to the cadastre do not provide any information on the accuracy required to determine the position of the turn points of land use boundaries. No allowable methods of measurement have been specified, nor additional attributes of the turn points of the boundaries of land use contours, specifying e.g. the source of the data on their location or the interval of the mean error value. Therefore, the process of collecting the data on land uses may be erroneously recognized as significantly less important than capturing information about the leading objects of the register of land and buildings. Such an approach should not take place, especially in the context of the tasks for which the data describing the actual method of land management are used.

According to the Regulation on the technical standards (Regulation 2011), land use contours belong to the field details of the third-order accuracy. The position of their turn points should be determined using detailed surveys. Therefore, it is permissible to carry out topographic field surveys, photogrammetric surveys and cartometric surveys, in order to ensure the accuracy of not less than 0.50 m relative to the closest points of the horizontal geodetic control and the measurement control. Consequently, these requirements are significantly less restrictive than those provided for in the case of capturing data on the location of boundary points of record parcels.

When analyzing the problem of recording data on land uses in the cadastral database, attention should be paid to the regulations contained in Appendix 1a to RLBR. According to the UML application diagram, a land use contour is directly associated with the cadastral district, not the record parcel. In the case of record parcels, we deal with the concept of the land-use class. It is worth noting that in § 60 of RLBR, the information specifying the surface areas of the land use contours and valuation classes within the parcel boundaries is mentioned as the record data of the parcel. There is no mention about the land-use class, however. The introduction of this specific term was necessary primarily due to the need to unify the data describing the current state of land development and land use.

Table 1 comprehensively summarizes the current land use types, together with their denotations, divided according to their inclusion into individual groups.

It is noteworthy, that orchards with an area of less than 0.1000 ha and other land with an area of less than 0.0100 ha are not entered into the records. In such a case, the contour of this specific land use should be included in the land adjacent to it. It should be emphasized that both agricultural land and forest land are subjected to soil classification. The course of the classification contours are

revealed in the cadastral database on the basis of the classification map referred to in the Regulation on soil classification of land (Regulation 2012).

Table 1. Groups, types and denotations of land uses

Group	Land use type	Land use denotation
Agricultural land	Arable land	R
	Orchards	S
	Permanent meadows	Ł
	Permanent pastures	Ps
	Developed agricultural land	Br
	Land under ponds	Wsr
	Land under ditches	W
	Land covered with trees and shrubs on agricultural land	Lzr
Forest land	Wasteland	N
	Forests	Ls
	Land covered with trees and shrubs	Lz
Developed and urbanized land	Residential areas	B
	Industrial areas	Ba
	Other developed areas	Bi
	Undeveloped urban areas or areas under development	Bp
	Recreational areas	Bz
	Fossil land	K
	Roads	dr
	Railway areas	Tk
	Other communication areas	Ti
	Land intended for construction of public roads and railways	Tp
Land under waters	Land under internal sea water	Wm
	Land under surface flowing water	Wp
	Land under surface still water	Ws
Other types of land		Tr
Ecological areas, denoted by the symbol consisting of the letter “E” and the symbol of the appropriate land use		e.g. E-R, E-Ps, E-Ls, E-Lz, E-Ws, E-Wp

Source: Own study based on RLBR

IDENTIFYING THE EXTENT AND TYPE OF LAND USE

The characteristics of the land classified as given land use type are specified in Appendix 6 to RLBR. It is the only document that forms the basis to identify the manner of land development or its use for the register of land and buildings. Unfortunately, these records are of a very general nature.

In the literature there are analyses of some problems with determining the extent of ecological areas (Dawid, Deska 2014), as well as with the land occupied by public roads (Modelska 2013). The authors pointed out that the existing conditionings indicated in RLBR are not sufficient in this regard, and it is frequently necessary to refer to other branches of law. This also applies to the most common types of land uses, such as developed agricultural land, forests, or undeveloped urban areas or those under development. According to Appendix 6 to RLBR, residential areas include:

1. the land occupied by buildings included in Chapter 11 of the Polish Classification of Types of Construction – residential buildings;
2. the land occupied by farm and technical buildings, connected in functional terms with the residential buildings referred to in section 1, as well as other facilities, including in particular: yards, access roads, walkways, backyards for games and relaxation, wells, tanks, ground-based installations, sewage collection and sewage treatment equipment, garbage dumps, landfills, objects of landscape architecture, fences, ponds, rock gardens;
3. the land situated between the buildings and the facilities referred to in sections 1 and 2, or in the immediate vicinity of these buildings and facilities, and not used for any other purpose which would justify its classification as a different group of land uses, including the land occupied by lawns, flowerbeds, vegetable gardens.

The presented description of the land belonging to residential areas has a direct reference to the Polish Classification of Types of Construction (Regulation 1999). According to this Regulation, the land use denoted “B” can be determined in the case of the areas developed with single-family residential buildings, buildings with two apartments, multi-residential buildings, and collective residential buildings. Chapter 11 – residential buildings according to the Polish Classification of Types of Construction – includes, among others, forester’s lodge, residential buildings on farms and country mansions. Therefore, these rules and the rules for the classification of land to individual land use types contained in Appendix 6 to RLBR are contradictory. A forester’s lodge could be an example which, in accordance with RLBR and the Forest Act (Act 1991b), is forest land and not residential area (Regulation 2001, Regulation 1999). Also, the correct

classification of land as the land use denoted “B” or “Br” can be problematic in some cases. Attention should be paid to the numerous formulations which are not clear, and thus can be interpreted in different ways, e.g. “functionally connected, “situated between”, “in the immediate vicinity”. This also applies to other types of land uses. It was not specified anywhere how to determine the scope of an orchard or mid-field groups of trees and shrubs. A similar conclusion can be drawn virtually for every type of land use. For this reason, the process of determining the extent of the contours of each land use is the task with a great deal of subjectivity, making it difficult to meet the requirement of running the register of land and buildings uniformly throughout the country.

It is worth noting, that the problem of land use type and its extent determination also occurs in other countries, like Germany or Turkey (Bender, Boehmer, Jens, Schumacher 2005; Güler, Yomralıoğlu, Reis 2007). Nevertheless, due to the different background and legal regulations in Poland, a comparative analysis of the examined issue was not carried out.

EXCLUSION OF LAND FROM PRODUCTION AND LAND USE

According to the Act on the Protection of Agricultural and Forest Land (Act 1995), hereinafter abbreviated as APAFL, exclusion of land from production (land use conversion) is understood as using land for other than agricultural or forestry purposes. Land use conversion may take place after the decision permitting such conversion. The relevant authorities for land use conversion issues are, respectively: the governor for agricultural land and the Director of the Regional Directorate of State Forests for forest land, with the exclusion of the areas of national parks, for which the competent authority is the director of the park. A decision authorizing the exclusion of land from agricultural or forestry production should be issued before applying for a building permit.

The procedure of land use conversion, which is quite complicated and involves a large number of persons (Bielecka, Całka 2012), is associated with a number of problems related to the updating of the data on land use entered into the cadastre. One of them is the actual time of the land being excluded from production. This issue has been widely discussed by Felcenloben (2009), who drew attention to the most common practices concerning the changes in land use being entered into the register of land and buildings as a consequence of land use conversion. The author questioned the procedure of entering these changes into cadastral database on the basis of:

- As-built surveys, due to the diverse time frame and often long-term implementation of the investment. The result: delays in imposing tax due on the property, and thus the depletion of the budget of respective municipalities.

- Administrative decisions authorizing the exclusion of land from agricultural and forestry production, due to the record of a new land use, unjustified at this stage. The result: premature and unjustified property tax imposed on land owners.

APAFL does not define the actual moment of land use conversion. According to Felcenloben (2009), in this situation it is reasonable to refer to the Construction Law (Act 1994) and the concept defined therein, defining the commencement of the construction process, which includes undertaking the preparatory work such as:

1. setting out building structures in the field,
2. leveling the construction site,
3. construction site management with the construction of temporary facilities,
4. utility services connections to technical infrastructure for the construction needs.

It should be noted that the investor is obliged to notify the competent organ of the construction supervision authority of the intended date of the commencement of works, which applies to the investments requiring a building permit. These preparatory works should also be properly documented in the construction logbook. Fulfilling these requirements should be regarded as a condition sufficient to determine the actual moment of land use conversion. It is also necessary that a land surveyor prepares a relevant technical documentation allowing for entering the changes in land use into the cadastre. The optimal solution is to carry out these actions during the setting-out procedure of the designed building structures. It should be emphasized that at this stage of construction, the right type of land use would be “undeveloped urban areas or areas under development”, denoted with the symbol “Bp”, which follows from Appendix 6 to RLBR. This view is also confirmed by Felcenloben (2009). Since 12 July 2014, the setting-out procedure has been to be reported to the locally competent district geodetic and cartographic documentation center, making it easier to update land use to “Bp”. Unfortunately, such a model procedure is not regularly applied in practice.

The issue of determining the boundaries of exclusion of land from production and, consequently, also of the boundaries of the land use contour, often raises some doubts. According to APAFL, the application for a decision authorizing the exclusion of land from agricultural and forestry production should also include the map defining the boundaries of the land intended for this conversion. It is usually a site plan of the parcel which includes the construction project or a map for design purposes. It is worth paying attention to article 12a of APAFL providing for the area for which conversion is free of charge. The obligation to pay duties and annual fees and, in the case of forest land, also a one-time com-

pensation, does not arise if the conversion of land use for residential purposes concerns the area:

1. up to 0.05 ha in the case of single-family buildings,
2. up to 0.02 ha per one dwelling, in the case of multi-residential buildings.

Given the above provision, investors usually seek to ensure that the area of the land subject to the application for conversion does not exceed the values listed above. Competent public authorities rarely question the findings contained in the application for the exclusion of land from production and the accompanying documentation. As a result, differences may occur between the surface area specified in the decision and the actual area being converted.

After the construction process has been completed, it is necessary to carry out as-built surveys, resulting in the updating of the land use details, documented in the record of changes in the cadastral data of the parcel. There are two divergent views on the practice of performing as-built surveys for entering changes in land use:

1. determining the boundaries of a land use contour according to the land use conversion decision,
2. determining the boundaries of a land use contour in accordance with the actual status in the field, after the completion of the construction process.

Felcenloben (2009) pointed out that if the actual area of conversion is larger than that provided for in the final administrative decision, its entering into the cadastre would require the initiation of separate administrative proceedings aiming to determine the factual status and to define the additional area occupied without a permission. This would also involve the accrual of fees for illegal land use conversion. Therefore, the author supports the first of the proposed solutions.

On the other hand, a surveyor is obliged to collect and deliver the data defining the factual status of the land development to the register of land and buildings. It is not possible, of course, to disregard the provisions contained in RLBR, which refer to classifying individual areas as specific types of land uses. Given that the previously proposed model regarding the time of entering the information about the actual exclusion of land from agricultural and forestry production is generally not used, the as-built surveys most frequently contain the data mapping the actual coverage of land use zones. This is confirmed by Gałuszka and Hanus (2011). Based on selected objects, the authors demonstrated significant differences between the surface areas of the developed and urbanized areas determined during the as-built surveys, and the area of the land excluded from production specified in the administrative decision. These discrepancies often exceeded three times the surface area permitted in the decision. Thus, the

effectiveness of the law on the protection of agricultural and forest land (Act 1995) was questioned.

LIMITATIONS RESULTING FROM FOREST MANAGEMENT PLANS

According to article 20 of GCL, the cadastre in the section concerning forests is run with regard to the provisions on the forests. However, article 20 section 2 of the Forest Act (Act 1991b) provides that the cadastre should take into account the findings of forest management plans and simplified forest management plans, primarily those referring to the boundaries of forest land and its area. This provision is important due to the regulations resulting from the aforementioned documents on forest management, which affect the course of land use contours. Thus, article 20 section 2 of the Forest Act should be regarded as a special provision in relation to the adopted general rules on the consideration and implementation of the changes entered into the cadastral database.

This particular problem was the subject of some proceedings in administrative courts. The Supreme Administrative Court in its judgment of 6 June 2008 (I OSK 844/07) confirmed that no changes regarding the determination of the boundaries and surface areas of forest land, entered into the cadastral database, may be implemented against forest management plans. It is the only document which forms the basis for updating the data contained in the cadastre regarding the boundaries and surface areas of forest land located in the area covered by the plan. This means that in order to introduce any changes into the cadastre, e.g. regarding the conversion of forest into farmland, it is necessary to make appropriate changes in the forest management plan or a simplified forest management plan. This is a prerequisite for the authority running the register of land and buildings to update surface areas and boundaries of forests, i.e. the land use data. This view was also approved by the Regional Administrative Court in Poznań, in its judgment of 14 September 2012 (II SA/Po 644/12).

Both the forest management plan and the simplified forest management plan are prepared for a period of 10 years, and, in special cases, for a period shorter than 10 years (Act 1991b). It should be emphasized that the findings of the aforementioned documents of forest management are binding on the authorities responsible for running the cadastre only during their validity period. It is confirmed by the judgment of the Supreme Administrative Court of 30 June 2011 (I OSK 1240/10). In the absence of the forest management plan, introduction of any changes into the cadastre which would involve entering the land use "Ls" is acceptable, as long as the land in question meets certain conditions. According to article 3 of the Forest Act, the forest is the land with a homogeneous area of at least 0.10 ha, covered with forest vegetation, trees and shrubs as well as undergrowth, or temporarily deprived of it. Then, it is necessary to appropriately

document the factual status. The Supreme Administrative Court in its aforementioned judgment (I OSK 1240/10) admitted evidence in the form of the prepared assessment description and photographic documentation. The area being zoned as forest land in the local development plan was also considered to be an important prerequisite.

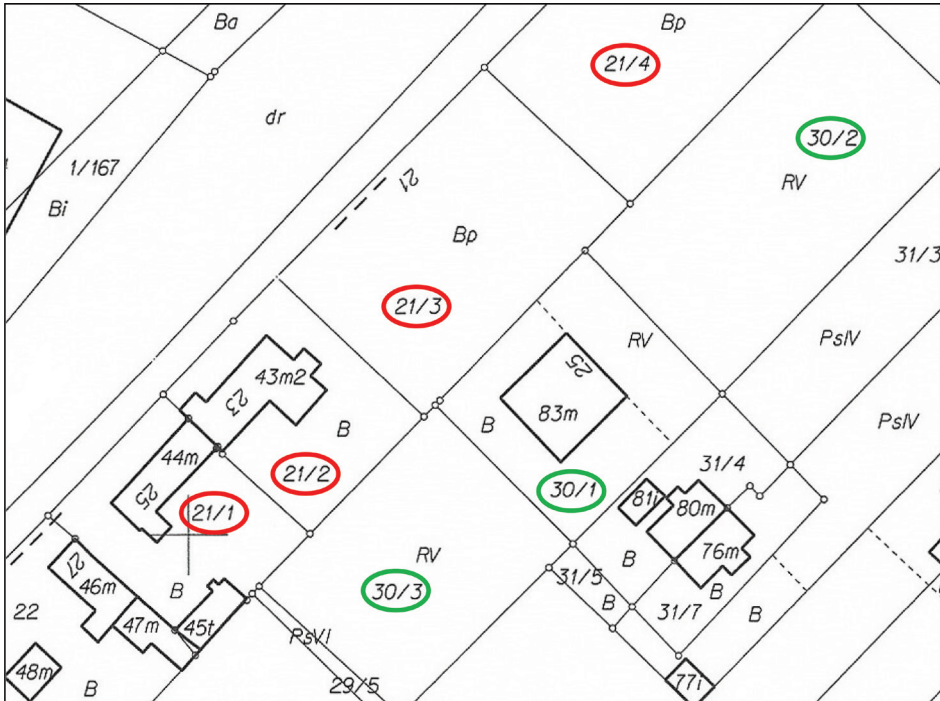
It should be noted that, within the meaning of article 3 of the Forest Act, the forest is also the land temporarily deprived of trees, shrubs and undergrowth, intended for forestry production. Nevertheless, such land can be classified as forest land only when it is covered by the forest management plan. Only on this basis it can be denoted with the symbol “Ls” in the cadastral survey report, as confirmed by the Regional Administrative Court in Szczecin in its judgment of 7 March 2007 (II SA/Sz 1262/06).

On the other hand, entering the change into the cadastral database that would replace forest land with another type of land use, requires the prior issue of an administrative decision to exclude land from forest production. The Regional Administrative Court in Warsaw in its judgment of 27 November 2012 (IV SA/Wa 1225/12) stated that the classification of land as specific land uses generally depends on the actual manner of their use, determined regarding the criteria specified in Appendix 6 to RLBR. Nevertheless, agricultural and forest land is subject to additional legal protection aimed to prevent uncontrolled changes in the management of this land. Consequently, without the implementation of appropriate procedures, and, in particular, without the exclusion of land from forest production, the status of forest land can not be lost. The Court also drew attention to article 13 section 2 of the Forest Act (Act 1991b), which provides for the possibility of changing forest into farmland in special cases, justified by the needs of forest owners. Unfortunately, as in most legislative acts containing a similar provision, the term of “particularly justified needs” has not been defined.

UPDATEDNESS OF THE DATA ON LAND USES

Taking into account a wide use of the data on land uses, especially for the purpose of tax base assessment, it is very important that these data were kept updated. Unfortunately, this requirement can not always be regarded as met. Fig. 1 demonstrates a fragment of the copy of the cadastral map, depicting, among others, land use zones in one of the cadastral districts located in Częstochowa (Silesian province).

The presence of arable land in the city’s typical residential area may raise some doubts. Fig. 2 illustrates the current state of development of these real properties, demonstrated on the orthophotomap. It is worth noting that the orthophotomap is becoming an increasingly popular tool used to update the data on land uses, especially during the comprehensive modernization of the cadastre.



Source: Own study based on the copy of the cadastral map issued by the Municipal Geodetic and Cartographic Documentation Center in Częstochowa

Figure 1. Fragment of the copy of the cadastral map (cadastral district located in the city of Częstochowa)

It is worth paying special attention to two adjacent plots of land, consisting of the following parcels:

- Real Property A: parcels number 21/1, 21/2, 21/3, 21/4
- Real Property B: parcels number 30/1, 30/2, 30/3

On the real property denoted as B in the cadastral database there is a building with a housing function. The parcel number 30/1, on which the building is situated, was further divided into residential areas (land use “B”) and arable land (land use “R”). Under the current law, there are no circumstances which would justify such an approach to the problem of determining the extent and types of land uses in the analyzed case. It is also definitely incorrect to enter the land use “R” on the record parcels number 30/2 and 30/3. There is no agricultural activity carried out on this real property. The land has no features of arable land referred to in Appendix 6 to RLBR. It cannot be qualified as a fallow or ley. It does not meet any requirements specific for other types of land uses from the agricultural land group. There is an access road through the parcel 30/2 to the building

number 83. The remaining part of the parcel is a lawn or a backyard garden, as evidenced by the vegetation.



Source: Own study based on <https://www.google.pl/maps>

Figure 2. Fragment of the orthophotomap (cadastral district located in the city of Częstochowa)

On the parcel 30/3 there are three outhouses or technical buildings, functionally associated with the residential building number 83. It is evident with a free communication access and no existing fences. It can be concluded that the parcels 30/1, 30/2 and 30/3 form an organized whole. They should be classified as residential areas.

The real property denoted as A is an interesting case as well, especially the parcels number 21/3 and 21/4, with the land use “Bp”. This status quo has persisted on the analyzed property since 31 December 1997, when the administrative decision approving the subdivision of the real property was issued. The subdivision was carried out under the no longer binding Act on Land Management and Expropriation (Act 1985). Then, based on the general spatial development plan for the city of Częstochowa, which was prepared in obedience to the regulations of the Act on Spatial Planning (Act 1984a), according to which these

parcels number 21/3 and 21/4 were located in the area of extensive development with the dominant function: single-family houses, small residential houses and services, the land use was updated in the cadastre. It is important that the Regulation of 17 December 1996 on the register of land and buildings (Regulation 1996) was in force at that time. Undeveloped land, but intended for development in the local zoning plans, was zoned as urban undeveloped area. The extent of land use was adopted on the basis of this plan. In this way, the parcels 21/3 and 21/4 were entered as the “Bp” land use in 1997.

The information on land use that was recorded more than 20 years ago can not be considered as correct in the current legal status. According to Appendix 6 to RLBR, undeveloped urban areas or areas under development denoted as “Bp” include the land on which construction works were started, but not completed, within the meaning of the Construction Law (Act 1994), resulting in the exclusion of this land from agricultural or forestry production within the meaning of APAFL. However, the findings contained in the planning documents are not taken into account.

No construction works were ever carried out on the subject parcels. Moreover, this land was never covered by the land use conversion decision. Therefore, the parcels 21/3 and 21/4 do not meet any requirements that would allow them to qualify for undeveloped urban areas or those under development. In the case of the parcel 21/3, “residential areas” marked with the symbol “B” seems to be a suitable type of land use. This parcel is a backyard garden, located in the immediate vicinity of a residential building number 43. This does not apply to the parcel 21/4, which was separated by a fence, and it does not border with the parcel 21/2, on which the residential building is situated. It is not possible either to classify the parcel 21/4 as any of the land use types from the agricultural land group. It is worth noting that, in the case of an attempt to restore agricultural land use in the place of the “Bp” land use, it would be necessary to carry out the soil classification of land by a qualified classifier.

It is problematic to specify the correct type of land use for the parcel 21/4. This is yet another argument proving the imperfections of the existing legal regulations governing the subject of determining and recording land use or land development.

In practice, similar situations occur quite frequently. One of the consequences are significant differences in the total tax base assessment for the real properties characterized by almost identical state of development. It should be emphasized that the land entered as agricultural land in the cadastral database is subject to agricultural tax, the unit rate of which is on average 30 times lower than the unit rate of real property tax for other land. Therefore, it is not surprising that communes are increasingly choosing to participate in the financing of the modernization of the cadastre, hoping for a quick return on the investment resulting from the real estate tax imposed on local lands. Reclassification of ag-

gricultural land into the type of land use which belongs to the group of developed and urban areas is the change that is most frequently made as a result of the modernization. The scale of this phenomenon and the resulting consequences for the tax payers were discussed by Benduch and Peška (2016). In the literature, attention was also turned to the issue of taxation of agricultural land intended for development in the local zoning plans (Dawid 2012). Having considered the discussed problems related to the determination of the types and extent of land uses, the introduction of the 'ad valorem' tax seems to be the solution which should help to improve the functioning of the system of real property taxation. There is no doubts, that cadastral or market value will be more reliable and rightful base of land property tax than the area of selected land use type.

SUMMARY AND CONCLUSIONS

The analysis related to the issue of determining the extent and types of land uses allowed for drawing the following conclusions:

- The land use data have a wide application range. These data are used primarily for the tax base assessment for land properties. They should be kept updated.
- The process of capturing information on the extent and types of land uses should be carried out in the appropriately accurate and reliable manner. The laws governing the register of land and buildings do not provide for any relevant provisions regulating these issues, however.
- The rules for qualifying land as specific land use type, contained in Appendix 6 to RLBR, are insufficient to unambiguously determine the extent and types of land uses or the actual status of land development. Therefore, the process of determining the boundaries of land use contours is subjected to a high degree of subjectivity, which consequently means that the tax base assessment for land property will be subject to uncertainty.
- The procedure of the exclusion of land from agricultural or forestry production (land use conversion) has a significant effect on the extent and types of land uses. The law does not clearly define when the occurring changes should be entered into the cadastral database. Moreover, it is frequently the case that the extent of land use identified after the as-built survey is not identical with the findings contained in the land use conversion decision.
- An important factor restricting the introduction of changes in land use to the cadastral survey report are the findings contained in the existing forest management plans or simplified forest management plans. For the areas covered by the aforementioned basic documents of forest

management, the procedure of updating cadastral database within the range of land use, required previous changes of the provisions contained in those documents.

- The level of updatedness of the land use data is still not satisfactory. This applies particularly to the areas for which the modernization of the cadastral database, aimed at verifying and comprehensively updating the data describing the state of land development, has not been carried out yet. This results in numerous irregularities in the tax base assessment for land properties.
- In practice, full objectification of the procedure for determining the extent and types of land uses is not possible. However, it is advisable to seek to amend the existing laws in this respect as to eliminate as many subjective factors, which reduce the quality of the land use data entered into the cadastral database, as possible.

REFERENCES

Bender, O., Boehmer, H. J., Jens, D., Schumacher, K. P. (2005). *Analysis of land-use change in a sector of Upper Franconia (Bavaria, Germany) since 1850 using land register records*. *Landscape Ecology*, 20(2): 149-163.

Benduch, P., Pęska, A. (2016). *The Influence of the Cadastre Modernization on the Real Estate Tax Base Assessment*. *Infrastruktura i Ekologia Terenów Wiejskich*, (III/1): 787-800.

Bielecka, E., Całka, B. (2012). *Analiza procesu wyłączeń gruntów z produkcji rolnej i leśnej na terenach wiejskich*. *Infrastruktura i Ekologia Terenów Wiejskich*, (2/III): 163-173.

Central Database of Administrative Courts Judgments. Online: <http://orzeczenia.nsa.gov.pl>

Dawid, L. (2012). *Problemy z wykorzystywaniem danych z katastru nieruchomości do celów podatkowych na przykładzie gminy wiejskiej Będzino*. *Infrastruktura i Ekologia Terenów Wiejskich*, (1/III): 7-17.

Dawid, L., Deska, K. (2014). *Wybrane problemy tworzenia użytków ekologicznych na przykładzie powiatu koszalińskiego i miasta Koszalin*. *Chrońmy Przyrodę Ojczystą*, 70(5): 445-451.

Felcenloben, D. (2009). *Wyłączenie gruntów z produkcji rolnej w kontekście aktualizacji ewidencji gruntów i budynków*. *Samorząd Terytorialny* 4: 61-68.

Gałuszka, Z., Hanus, P. (2011). *Analiza wyłączenia gruntów z produkcji rolnej w kontekście inwentaryzacji powykonawczej budynku*. *Acta Scientifica Academiae Ostroviensis* 35: 12-19.

Google Maps service: <https://www.google.pl/maps>.

Güler, M., Yomralioğlu, T., Reis, S. (2007). *Using landsat data to determine land use/land cover changes in Samsun, Turkey*. Environmental Monitoring and Assessment, 127(1): 155-167.

Konieczna, J. (2012). *Użytki gruntowe i ich aktualizacja podstawą prac kształtujących strukturę przestrzenną obszarów wiejskich*. Infrastruktura i Ekologia Terenów Wiejskich, (1/II): 197-206.

The Act of 12 July 1984 on spatial planning (Journal of Laws of 1989, No. 17, item 99 – consolidated text, as amended – Act repealed) – Act 1984a.

The Act of 15 November 1984 on agricultural tax (Official Journal 2013, No. 0, item 1381 – consolidated text, as amended) – Act 1984b.

The Act of 29 April 1985 on land management and expropriation (Journal of Laws of 1991, No. 30, item 127 – consolidated text, as amended – Act repealed).

The Act of 17 May 1989 Geodetic and Cartographic Law (Official Journal 2015, No. 0, item 520 – consolidated text, as amended).

The Act of 12 January 1991 on taxes and local fees (Official Journal 2014, No. 0, item 849 – consolidated text, as amended) – Act 1991a.

The Act of 28 September 1991 on forests (Official Journal 2015, No. 0, item 2100 – consolidated text, as amended) – Act 1991b.

The Act of 7 July 1994 The Construction Law (Official Journal 2016, No. 0, item 290 – consolidated text, as amended).

The Act of 3 February 1995 on the protection of agricultural and forest land (Official Journal 2015, No. 0, item 909 – consolidated text, as amended).

The Act of 21 August 1997 on real estate management (Official Journal 2016, No. 0, item 2147 – consolidated text, as amended).

The Act of 30 October 2002 on forestry tax (Official Journal 2013, No. 0, item 465 – consolidated text, as amended).

The Regulation of the Minister of Spatial Planning and Construction and of Agriculture and Food Economy of 17 December 1996 on the register of land and buildings (Journal of Laws of 1996, No. 158, item 813 – Act repealed).

The Regulation of the Council of Ministers of 30 December 1999 on the Polish Classification of Types of Constructions (PKOB) (Journal of Laws of 1999 No. 112, item 1316 – as amended).

The Regulation of the Minister of Regional Development and Construction of 29 March 2001 on the register of land and buildings (Official Journal 2016, No. 0, item 1034 – consolidated text).

The Regulation of the Minister of Internal Affairs and Administration of 9 November 2011 on the technical standards for the performance of horizontal and height measurements and processing as well as transferring results of these measurements to the National Geodetic and Cartographic Resource (Official Journal 2011, No. 263, item 1572).

The Regulation of the Council of Ministers of 12 September 2012 on soil classification of land (Official Journal 2012, No. 0, item 1246).

The Regulation of the Minister of Administration and Digitalization of 29 November 2013 amending the regulation on the register of land and buildings (Official Journal 2013, No. 0, item 1551).

The Regulation of the Minister of Administration and Digitalization of 6 November 2015 amending the regulation on the register of land and buildings (Official Journal 2015, No. 0, item 2109).

Corresponding author: Eng. Piotr Benduch MSc
AGH University of Science and Technology
Faculty of Mining Surveying and Environmental Engineering
Department of Geomatics
al. A. Mickiewicza 30,
30-059 Kraków
piotr.benduch@agh.edu.pl

Received: 14.03.2017

Accepted: 21.04.2017