



ISSN 1648-2603 (print)  
ISSN 2029-2872 (online)

VIEŠOJI POLITIKA IR ADMINISTRAVIMAS  
PUBLIC POLICY AND ADMINISTRATION  
2020, T. 19, Nr. 2 / 2020, Vol. 19, No 2, p. 329–339.

## CORRECTIVE FACTORS TAKEN INTO ACCOUNT WHEN DETERMINING THE RENT FOR LAND PLOTS AS A TOOL FOR FILLING THE BUDGET IN A MUNICIPALITY (THE EXAMPLE OF THE CITY OF CHELYABINSK)

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DOI: 10.13165/VPA-20-19-2-13

**Abstract.** *There is a lack of common and clear methods for calculating correction factors in determining the amount of rent for use of land plots located in the territory of the municipality on state property, and the rate of rent is therefore not delimited. Land plots which are under municipal ownership objectively necessitate the perfection of a technique of defining rent for use of land plots, taking into account the interests of both the tenants and the municipality as lessor. This often comes at the expense of correction coefficients which, on the one hand, can lead to the deterioration of the investment climate in the municipality due to the overestimated value of the coefficients. On the other hand, they can lead to a significant decrease in budgetary revenues due to the underestimated value of these coefficients in lease of land plots.*

**Keywords:** *rent, land plots, adjusting coefficient, cadastral value, rent rate.*

**Raktažodžiai:** *nuoma, žemės sklypai, koreguojamasis koeficientas, kadastrinė vertė, nuomos norma.*

### Introduction

An increase of property incomes in local budgets is the most important task of local authorities in the field of land and property relations. These revenues (land tax, land rent and municipal property rent, personal property tax, and privatization income) form the second largest contribution, after personal income tax (Basangova and Mandzhieva 2016).

The rental revenue from land plots located in the territory of the municipality forms part of the income of the local budget (Khamzina, Khamzin, and Leshina 2016).

Calculation of rent for the use of land plots depends on two factors – the land and the rental rate – forming a cadastral value. The procedure for determining the cadastral value is governed by federal regulations

So, the questions on the assessment of market rents and the cost of the rights associated with the land lease agreement, covered in the works of Barinov (2018) and Vladimirov (2018), determine the features of the establishment of rent in land lease agreements under the laws of the Russian Federation.

The fundamentals of the methodology for justifying rents for land plots are covered in the works of Garmanov and Terleev (2017).

Donetskova (2014) considers the ratio of private and public when setting a regulated fee for a lease agreement for a land plot that is in state and municipal ownership. As for the rental rate for land plots, it is set in accordance with the legislative acts of the Russian Federation's constituent entities.

In the Chelyabinsk region, this is set out in the Law of April 24, 2008, № 257-ZO "On the procedure for determining the rent for the land plots, the state property of which is not delimited, provided for rent without tendering" (the 257-ZO).<sup>1</sup>

In order to strengthen the economic interest of municipalities in the management and the formation of municipal budget revenues, this law gives the right to the municipality to adjust the amount of rent using correction factors.

The issues around the economic efficiency of using municipal property are important tasks of the executive.

Questions of determining the economic efficiency of using cadastral land assessment in establishing differentiated rates of rent for land are raised in the work of Katalina (2016). Komarov and Volokitina (2017) cover the issues of improving the system of land payments to the municipality. Nozdrachev and Galchenko (2017) studied the theoretical and methodological provisions of the formation of an economic mechanism for managing the land resources of a megapolis.

At the same time, there is no uniform and clear method for calculating the correction coefficients for determining the amount of rent for the use of land plots located in the territory of a municipality that are owned by the municipality.

The purpose of this study is as a feasibility study, and to develop the values of the coefficients K1, K2, K3, which are considered in determining the amount of rent for use of land plots where state property is not delimited, as well as in the municipal property in the territory of the municipality.

The novelty of the results obtained by the authors emerges in the preparation of proposals and practical recommendations for improving organizational and economic approaches and methods for determining rent for the use of land plots.

1 Law of the Chelyabinsk region on April 24, 2008, № 257-ZO "On the procedure for determining the rent for the land plots whose state ownership is not delimited, lease without competitive bidding". <http://base.garant.ru/8713871/>.

The practical significance of this research is contained in the development of concrete and economically justified proposals and recommendations for improving approaches and methods for determining the lease for the use of land plots using corrective coefficients.

### **Methods of study**

The research methodology is based on the fact that municipalities in the territory of the Chelyabinsk region, in accordance with article 1, paragraphs 3, 7, and 10 of the Law of the Chelyabinsk region No. 257-ZO, have the right to adjust the amount of rent for land plots using the following corrective coefficients:

- K1, which takes into account the permitted use of the land plot according to the information contained in the Unified state register of real estate;
- K2, which takes into account the location of land plots in the city;
- K3, which takes into account the categories of tenants (hereinafter coefficients).

The decision of the Chelyabinsk City Duma of June 24, 2008, No. 32/7 (last amended on July 26, 2017) “On the rent for land in the territory of the city of Chelyabinsk” (hereinafter – Decision No. 32/7) approves the procedure for calculating the rent for the use of land plots. This procedure applies to land located on the territory of the city of Chelyabinsk, and land that is owned by the city of Chelyabinsk. The cadastral value is used as the basis for calculating the rent for land plots. The values of the correction coefficients are calculated based on the same decision.

We have conducted a study of the social and economic validity of the numerical values of the above coefficients. The relevance of this kind of research is emphasized by S. B. Ognitsev (2015, 12).

### **Analysis and verification of the social and economic validity of numeric values of the coefficient K1**

The K1 value must be calculated in accordance with the type of permitted use of the land plot. At the same time, the Land Code of the Russian Federation (article 7, paragraph 2) states that “...the types of permitted use of land plots are determined according to the classifier approved by the Federal Executive authority that develops state policy and regulates land relations.” In accordance with this classification, there are 13 enlarged groups of types of permitted use of land plots.

The types of land plots allowed for use, as specified in Decision No. 32/7, are formulated in such a way that they characterize the activities of tenants, and not the types of permitted use of land plots specified in the classifier. Moreover, when formulating the type of permitted use of land plots in the Chelyabinsk city district, the decision of the Chelyabinsk City Duma of October 9, 2012, No. 37/13, is applied. This document provides for nine enlarged groups of permitted uses. Moreover, each type is divided into three components (main, auxiliary, and conditionally allowed).

Comparing the Decisions of the Chelyabinsk City Duma No. 32/7 and No. 37/13, we see different formulations of the types of permitted use of land plots.

Thus, the application of three types of normative documents that name the permitted uses of land plots makes it much more difficult to formulate the permitted use of land in title documents, which leads to incorrect information entered in the Unified state register of real estate and, in the future, to the calculation of rent.

It is necessary to align the types of permitted use under Decision No. 32/7 with the types of permitted use specified in the classifier.

In addition, article 1, paragraph 3 of the Law of the Chelyabinsk region No. 257-ZO provides that K1 can be set in the range of 0.1 to 20, depending on the types of permitted use, whereas in Decision 32/7 on line 1 “activities of public associations”, column 5, this indicator is 0.064, and this goes beyond the normatively established interval.

Moreover, the values of K1 are mathematically calculated in such a way that when choosing a different value of K1, depending on the range of cadastral value, the product of K1, K2, and K3 when calculating rent gives the same value.

For example, consider the information on line 1 of Table 1, the value of the coefficient K1, which takes into account the permitted use of land according to the information contained in the Unified State Register of Real Estate, to Decision 32/7. Table 1 contains an excerpt from Decision 32/7.

*Table 1. Excerpt from the table to Decision 32/7*

№	Type of the allowed use of the land plot	Range of cadastral cost, rub/m <sup>2</sup>		
		0 – 3999	4000 – 7999	8000 and more
1	Activity of public associations	0.318	0.106	0.064

If, in accordance with the method of Decision 32/7, we substitute specific numeric values instead of K1, K2, and K3, we get almost identical values of the product of three coefficients, which erases the entire economic meaning of calculating rent for land plots, depending on the ranking of various aspects of leased land plots.

$$P1 = 0.318 * 2 * 0.5 = 0.318$$

$$P2 = 0.106 * 6 * 0.5 = 0.318$$

$$P3 = 0.064 * 10 * 0.5 = 0.320$$

where P1, P2, P3 – resultant value;

2, 6, 10 – the range of cadastral cost, rub/m<sup>2</sup> (Central district);

0.5 – medical and improving activity.

The analysis of the calculations performed showed that the use of ranking by cost per square meter leads to an excessive overload of the calculation of the amount of rent. The authors suggest eliminating the “cost per square meter” parameter.

## Analysis and verification of the social and economic validity of numerical values of the coefficient K2

The value of the K2 coefficient should take into account the location of the land plot in the city of Chelyabinsk. This right is assigned to the municipality by article 1, paragraph 7, of the Law of the Chelyabinsk region No. 257-ZO. In this article, the range of K2 values can be set from 0.5 to 10. In Decision 32/7, the K2 values range from 1.42 to 10. Moreover, the values of this coefficient are calculated taking into account two factors: the district location and the range of cadastral value.

When considering the influence of the first factor, it is clear that the highest values of the K2 coefficient are set in the Central district, and the lowest in the metallurgical district of the city of Chelyabinsk. This ranking of districts of the city of Chelyabinsk was presented in the economic justification of the correction coefficients K1, K2, and K3 for determining the amount of rent for land in the city of Chelyabinsk, developed by the municipal unitary enterprise Geocenter of Chelyabinsk in 2017. Among the reasons for the higher rank of the district were: population density; the location of regional and city authorities in them; cultural and entertainment facilities, shopping and recreational facilities; environmental features; and transport opportunities, among others.

Moreover, the developers note that the ranking of districts was made by an expert commission more than 15 years ago.

In this regard, we consider it necessary to note:

- firstly, the above reasons for ranking districts have changed significantly over the past 15 years, in relation to a specific district of the city of Chelyabinsk (Table 2);

Table 2. Rank of value of districts of Chelyabinsk

District	Area rank according to economic justification by Geocenter of Chelyabinsk		Area rank by analysis in p.1.1 (project option)
	Value of a rank	The place of the area on appeal	
Central	1	1	2
Sovietsky	0.87	2	3
Kalininsky	0.79	3	5
Kurchatovsky	0.77	4	4
Leninsky	0.75	5	1
Traktorozavodsky	0.72	6	7
Metallurgicheskii	0.72	6	6

- secondly, the features of the location of the land plot are largely taken into account in the components of its cadastral value. Methodical instructions on the state cadastral valuation, promulgated by the Ministry of Economic Development of the Russian Federation (May 12, 2017, No. 226, paragraph 1.12), found that the determination of the cadastral value of the land must consider:

- the presence or absence of boundaries of land engineering and transport infrastructure;
- the degree of development of the territory surrounding the land plot;
- the existing terrain of the land plot.

Taking into account the analysis of factors that affect the determination of rent, conducted in the first chapter, one can predict the rank (place) of the district at the current time.

Analysis of Table 2 shows that the ranking of districts has changed. In particular, the leadership has shifted from the Central to the Leninsky district. However, in the future, it is necessary to distinguish the ranks obtained by districts depending on “attractiveness for life” and “attractiveness for business.” Thus, we will be afforded a more detailed analysis of the social and economic components of the K2 coefficient.

As a second factor affecting the value of K2 in Decision 32/7, the range of cadastral value per square meter of land is indicated, which also “works” to increase the value of the rent of a land plot depending on the cadastral value of its land.

Thus, despite the fact that K2 must take into account the location of the land plot in the city of Chelyabinsk, in fact K2 takes into account two factors:

- the rank of the district of Chelyabinsk;
- the range of the cadastral value.

At the same time, the cadastral value itself already takes into account the features of infrastructure provision for a specific land plot. In this regard, there is a question about the feasibility of applying the K2 coefficient (Garmanov et al. 2015, 30). The authors suggest to abandon the use of the cadastral value range and calculate this coefficient based on the indicators of socio-economic development of the district.

### **Analysis and verification of the social and economic validity of numerical values of the coefficient K3**

The values of the K3 coefficient, in accordance with article 1, paragraph 9, of the Law of the Chelyabinsk region No. 257-ZO, must be set in accordance with the category of tenants. The range of this coefficient is from 0.001 to 1. Thus, in fact, this coefficient is a preference for certain categories of tenants. At the same time, the list of categories of tenants who are entitled to this preference is strictly limited to No. 257-ZO. This list includes 32 categories: 7 categories are regulated by clause 9 and have a clear K3 value of 0.001; and 25 categories are regulated by clause 10 for which K3 must be established by decisions of local self-government bodies within the limits specified above. Decision 32/7 provides a specific list of categories of tenants with different K3 values. Next, it is necessary to analyze compliance with the requirements of the Law of the Chelyabinsk region No. 257-ZO and Decision 32/7 on the category of tenants.

Analysis of these regulatory documents showed that, in comparison with the requirements of the Law of the Chelyabinsk region No. 257-ZO, not all categories of tenants are taken into account in Decision 32/7, for example:

- religious organizations (in regards to land plots used by them for religious activities);
- organizations that carry out civil and military burials (in relation to the land plots of cemeteries).

On the other hand, the very assessment of socially significant activities of tenants is questionable. For example, organizations and individual entrepreneurs operating in the field of waste management have a K3 value of 0.0129 for land plots provided to them for the placement and disposal of production and consumption waste, and organizations and individual entrepreneurs have a K3 value 0.9 for land plots provided to them for the provision of public passenger transport services (except for taxis). The difference here is obvious.

Assessment of the social significance of these activities is given in the Letter of the Ministry of Economic Development of the Russian Federation of January 17, 2011, № D23-62; the Law of the Chelyabinsk region of October 28, 2004, No. 1427 “On lease of property in state ownership of the Chelyabinsk region”; and article 21 of the sub-program “Support and development of small and average business in Chelyabinsk region for 2016-2020.”

Information about the socially significant activities of tenants is provided in:

- the Decree of the Government of the Russian Federation dated July 16, 2009, № 582;
- letter No. D23-62 of the Ministry of Economic Development of the Russian Federation dated January 17, 2011;
- the Law of the Chelyabinsk region “On lease of property in state ownership of the Chelyabinsk region” dated January 28, 2004, No. 1427, V. 21;
- Annex 3 to the sub-program “Support and development of small and average business in Chelyabinsk region for 2016-2020,” N. 2, PP. 3;
- the list of socially important and priority markets to facilitate competition development in the Chelyabinsk region, approved by the Governor of Chelyabinsk region Boris Dubrovsky A. on February 28, 2018.

Thus, according to the authors, it is necessary to align the list of categories of tenants in accordance with the Law of the Chelyabinsk region No. 257-ZO, and to revise the values of K3 in accordance with socially significant activities in the territory of the Chelyabinsk region.

## Conclusions

1. The coefficient that takes into account the permitted use of land plots, in accordance with the information contained in the Unified State Register of Real Estate, is K1. The types of permitted use of land indicated in Decision No. 32/7 are formulated in such a way that characterizes the activities of tenants, and not the types of permitted use of land indicated in the classifier. Moreover, in the Chelyabinsk city district, in the formulation of permitted use of land plots three types of normative documents are used, in which are named the permitted types of land use. This greatly complicates the formula-

tion of permitted use of land plots and the legal documents, which leads to incorrect information entered into the Unified State Register of Real Estate, and further difficulties with the calculation of rent.

2. In article 1, paragraph 3, of the Law of the Chelyabinsk region No. 257-ZO, it is provided that K1 can be set in the range of 0.1 to 20, depending on the types of permitted use, whereas in Decision 32/7 on line 1 “activities of public associations”, column 5, this indicator is equal to 0.064, and this goes beyond the normatively established interval.
3. The values of K1 are mathematically calculated in such a way that when choosing a different value of K1, depending on the range of cadastral value, the product of K1, K2, and K3 gives the same value.
4. With regard to the coefficient that takes into account the features of the territorial location of the land plot K2, it should be noted that, firstly, the above reasons for ranking districts over the past 15 years have changed significantly in relation to a specific district of the city of Chelyabinsk. Secondly, the features of the location of the land plot are largely taken into account in the components of its cadastral value.
5. Despite the fact that K2 must consider the location of land in the city of Chelyabinsk, in fact it takes into account, besides the location in a particular area, the range of the cadastral cost of one square meter which, as the cadastral value takes into account the particularities of infrastructure, supports specific land.
6. The coefficient that takes into account the category of tenant, K3, in comparison with the requirements of the Law of the Chelyabinsk region No. 257-ZO, demonstrates that not all categories of tenants are taken into account in Decision 32/7, and that the assessment of socially significant activities of tenants itself is questionable.
7. The authors propose to align the list of categories of tenants in accordance with the Law of the Chelyabinsk region No. 257-ZO, and revise the values of K3 in accordance with socially significant activities in the territory of the Chelyabinsk region.

## Literature

1. Barinov, N. P. 2018. “On the Assessment of the Market Rent and the Cost of Rights Related to the Land Plot Lease Agreement.” *Property Relations in the Russian Federation* 201 (6): 6–24.
2. Basangova, N. A., and G. D. Mandzhieva. 2016. “Certain Aspects of Regulation of Land and Property Relations in the Context of Strengthening the Revenue Base of Local Self-Government.” In *Proceedings of the Conference “Economic Security and Financial and Credit Relations in Modern Conditions: Approaches, Problems and Directions of Improvement,”* 107–12. Elista: Kalmyk State University Named After B. B. Gorodovikov.
3. Donetkov, E. S. 2014. “The Ratio of Private and Public when Establishing a Regulated Fee under a Lease Agreement for a Land Plot that is in State and Municipal Ownership.” *Economic and Legal Issues* 76: 19–22.

4. Garmanov, V. V., A. G. Osipov, G. K. Osipov, and S. I. Nosov. 2015. "Statistical Approach to Updating the Rent for the Land of State Ownership of Saint Petersburg." *Land Management, Cadastre and Monitoring of Land* 123 (3): 25–31.
5. Garmanov, V. V., and V. V. Terleev. 2017. "Fundamentals of Methodology for Justifying Rent for Land Plots." *Bulletin of the Faculty of Land Management of the Saint Petersburg State Agrarian University* (3): 8–10.
6. Katalina, L. A. 2016. "Economic Efficiency of Application of Cadastral Land Assessment when Establishing Differentiated Rates of Rent for Land." In *Modern Problems of Effective Land Use: Collection of Scientific Papers*, 78–83. Moscow.
7. Khamzina, O. I., I. I. Khamzin, and E. A. Leshina. 2016. "Place of Land Lease in the System of Land Relations." In *Materials of the VII International Scientific and Practical Conference "Agricultural Science and Education at the Present Stage of Development: Experience, Problems and Ways to Solve Them,"* 133–9.
8. Kokaeva, T. T., and Z. A. Savlokhov. 2017. "Accounting and Tax: Accounting of Lease of Land for Agricultural Purposes." In *Achievements of Science-Agriculture: Materials of the All-Russian Scientific and Practical Conference (Correspondence)*, Vladikavkaz, 84–88.
9. Komarov, S. I., and A. A. Volokitina. 2017. "Improving the System of Land Payments of Municipal Formation." *Land Management, Cadastre and Land Monitoring* 147 (4): 47–55.
10. Kuchinskaya, A. V. 2014. "Legal Regulation of Land Relations in the Territories of Special Economic Zones in the Russian Federation." *Agrarian and Land Law* 112 (4): 57–59.
11. Kurepina, N. L., M. V. Shavaeva, and A. N. Kurganov. 2018. "Legal Regulation of Payment for Land in the Republic of Kalmykia." In *Ecology of Russia: On the Way to Innovation. Intercollegiate Collection of Scientific Papers*, edited by T. V. Dymova, 88–92. Astrakhan.
12. Nozdrachev, T. A., and S. A. Galchenko. 2017. "Theoretical and Methodological Provisions for the Formation of an Economic Mechanism for Managing Land Resources of a Megapolis." *Moscow Economic Journal* 5/2017.
13. Ognivtsev, S. B. 2015. "Directions for Improving Land Relations." *Economic and Legal Issues* 10: 8–16.
14. Suleymanova, A. V. 2017. "Mechanism for Collecting Rent in the City District of Ufa, Republic of Bashkortostan." *Bulletin of the Belgorod State Technological University Named After V. G. Shukhov* 2 (4): 172–7.
15. Vladimirov, N. N. 2018. "Features of Establishing Rent in Land Lease Agreements under the Legislation of the Russian Federation." *Eurasian Legal Journal* 117 (2): 132–4.
16. Yarotskaya, E. V., A. V. Katylevskaya, and E. S. Filobok. 2018. "Proposals for Improving the System of Land Payments for Agricultural Land in the Beloglinsky District of Krasnodar Krai." *Science without Borders* 24 (7): 28–32.

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## **Korekciniai veiksniai, į kuriuos atsižvelgiama nustatant žemės sklypų nuomos mokesį, kaip biudžeto užpildymo įrankį savivaldybėje (Čeliabinsko miesto pavyzdys)**

Anotacija

Nėra bendrų ir aiškių korekcinio koeficientų apskaičiavimo metodų, kuriais remiantis būtų galima nustatyti savivaldybės teritorijoje esančių žemės sklypų nuomos mokesčio dydį. Neatriboti valstybei ir savivaldybei priklausantys žemės sklypai sukelia objektyvią būtinybę tobulinti žemės sklypų nuomos mokesčių nustatymo būdus. Reikalinga atsižvelgti į tiek nuomininkų, tiek savivaldybės, kaip nuomotojo, interesus per korekcinis koeficientus, kurie pablogina investicinį klimatą savivaldybėje, iš vienos pusės, dėl pervertintos apskaičiuotų koeficientų vertės, antrą vertus, dėl reikšmingo biudžeto pajamų sumažėjimo dėl žemės sklypų nuomos.

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