

LAND QUALITY ASSESSMENT OF THE IMPACT OF REAL PROPERTY CADASTRAL VALUE IN LATVIA

Vivita Baumann, associate professor, Dr.oec.

Latvia University of Agriculture, Department of Land Management and Geodesy

e-mail: vivita.baumann@llu.lv

ABSTRACT

Land quality assessment is one of the most important characteristics that affect the real property cadastral value, which is used in the base value of the rural cadastral evaluation. The study evaluated soil quality assessment in territory of municipality of Latvia. The study analyzed the agricultural land area. Study evaluated the course of county real property expert survey results. The study concluded that the land quality assessment is important data of cadastral value. Main conclusion of the study is that the country need complex of state measure to update the land quality assessment, as a result of the development of real property cadastral value.

Key words: real property, agriculture land, land quality assessment, cadastral value.

INTRODUCTION

Latvia gaining independence, the country began a rapid political, social and economic restructuring based on private property, as well as the decentralized market-oriented farming system, resulting in 1990 on 13th June adopted a resolution "On the agrarian reform of the Latvian Republic" (Par agrāro reformu..., 1990), as well as the 1990 on 21th November - the Law on Land Reform in the Latvian Republic in rural areas" (Par zemes reformu ..., 1990). Cadastral valuation of Latvia, since independence, began with the land valuation of the land reform provision. Therefore, maintained the pre-developed, scientifically based land quality assessment system, which included all agricultural land in the assessment of individual village councils and districts. The law "On Land Privatization in Rural Areas" also included the fact that the valuation of land in cash should be based on:

- the land evaluation points;
- weighting of holding the position;
- one ground points in the assessment (above) equaling 70 kg of rye value of the purchase price;
- growing tree stand assessment.

In view of the land reform and the new land owners number, as well as assessing the Soviet years, developed land-use projects and carry out a soil mapping results, it was decided to support the new agricultural land cadastral valuation methods, the application of the 1957 - 1959 years developed soil fertility evaluation, the essentials of the 20th century Vidzeme and inventories, experience, and the Soviets during the second round of improvements to the methodology developed (Boruks, 1991; Boruks, 2004).

Land quality assessment of all land users were defined on the basis of each type of land use and climatic conditions. On the natural conditions have

changed, or substantially changing a little, and their impact on crop yields and total crop production estimates are stable and long-term basis, regardless of land ownership or use of state, was the essential decisions to use land reform and land tax estimates of land quality indicators. More to 1992 year the actual land evaluation was carried out, a survey of certain land uses in the field, through the Soviet period created the situation survey plans and maps of soils and soil agrochemical survey maps and descriptions. Land appraisers found naturally in soil properties of all the complex data, marked the boundaries and the land valuation tables set rating and assessment of the points - the soil quality assessment. Real property cadastral valuation methodology is continuously evolving, but the soil quality assessment is a key factor in determining the rural cadastral value of bases indicators (Nekustamā īpašuma valsts..., 2005; Kadastrālās vērtēšanas noteikumi, 2006).

The study hypothesis is Agricultural land quality assessment have the significant impact on property values. Consequently, the study aims to assess agricultural land quality assessment need to update, and its impact on the cadastral value. The study addressed the following objectives:

- to evaluate the real property cadastral value of determining characteristics and analysis of agricultural land;
- to evaluate the average municipalities land quality assessment;
- take local expert survey analysis;
- provide conclusions and recommendations.

Scientific literature, laws, the data of State Land Service are used in this research.

MATERIALS AND METHODS

In the study were used a regulatory acts, where determine indicators for cadastral assessment. (Kadastrālās..., 2006).

Monographic method, questionnaires method, descriptive statistics analysis method is used in the particular research.

In the data analysis were used SPSS.

RESULTS AND DISCUSSION

To any objective property of certain cadastral value, it is necessary to get and keep pressing the cadastral data in the cadastral information system. One is a qualitative assessment of land used for the base value of the rural cadastral evaluation.

The indicators of the basis of cadastral values for rural land shall be:

- the base value for the utilised agricultural land soil for each quality group of the utilised agricultural land;
- the base value for wooded land for each quality group of wooded land.

Utilised agricultural land depending on the quality assessment in points of the utilised agricultural land by the regulatory productivity (one land value point – 70 kg of rye units) shall be divided in 7 quality groups (Kadastrālās vērtēšanas noteikumi, 2006; Baumanē, 2009):

I quality group – less than 10 points

II quality group – from 10 up to 19 points;

III quality group – from 20 up to 30 points;

IV quality group – from 31 up to 40 points;

V quality group – from 41 up to 50 points;

VI quality group – from 51 up to 60 points; and

VI quality group – more than 60 points.

The following main factors affecting the value shall be assessed in respect to the rural land (Baumanē, 2010): the land quality, the content of the use types of land, the area, the location, the building effect and encumbrances.

Analyzing 512 territorial units for the average agricultural land quality assessment a trend showed that mainly soil quality assessment of the range of 30 to 41 points (Figure 1).

The lowest assessment is only 17 points in Kolka and Engure parishes, 19 points in Lapmežciems parish, where the basis of studies of the agricultural land capability, crop area, with no improvers, there is no practical use, therefore they are include in the I quality group. By contrast, highest rating is 67 points Svitene parish and 65 points Sesava parish, which includes in the VI quality group. Average parishes of Latvia soil quality assessment is 37 points, corresponding to the III quality group.

However, clearly soils in Latvia has not been studied at the state level 20 years, and those estimates are based on the 1989 – 1991 year materials of soil mapping. Currently, each unit of land is fixed weighted average of the agricultural land quality assessment in points, and it is registered in the Cadastral Information System at each property. At the average indicator can't determine soil types, different degrees of cultivation, drainage condition and the degree of erosion.

Today is not united Land Policy in Latvia. Only a few laws have affected soil protection, and clearly do not identify the institution which exactly does soil protection aspects.

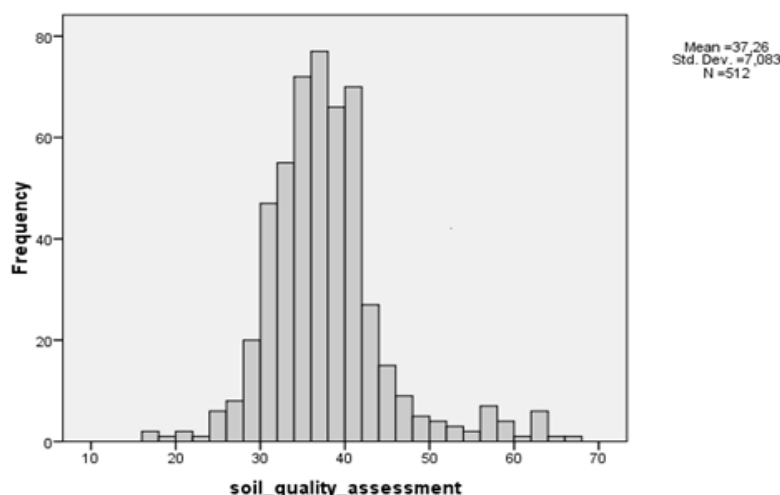


Figure 1. Distribution of soil quality assessment

In 2006 for the European Commission approved the Soil Protection Thematic Strategy. On this basis, the EC has prepared a draft Framework Directive on soil protection. EC is currently no common laws,

which ensure the protection of soil, and the political agreement of the Member States have not reached as part of the opinion that the Directive is not necessary, since everything is sufficiently regulated

at the national level. While in Latvia, since the independence years of soil conservation has been neglected, acknowledged that the directive could serve as guidelines in this area. In 2007, the Ministry of Agriculture set up a Steering Group of the measure - Soil maps and databases, digitization and updating. In 2008, the Cabinet approved the national policy framework, which was to prepare an informative report about the land degradation in the development and implementation, including the issue of land re-cultivation / renewal possible economic instruments, to develop a methodology for determining soil quality assessment, to establish a land information system based on the current geo-spatial information in order to obtain complete and current information about any ground unit and its processes.

Theoretical basis and prerequisites for improving the situation is, but still there are soil maps in use that containing the information which is outdated. As well as the currently used soil classification differs significantly from the international classification of soils, including the Food and Agriculture Organization (FAO) developed. It is therefore necessary to prepare the soil map, corresponding to FAO standards. Soil mapping is also necessary to obtain systematic information on the state of the soil to determine soil degradation risk areas, calculate the carbon balance, as well as business planning and to provide fertilizer and plant protection products used wisely, certain less-favored areas, so that the real estate would establish an objective and cadastral value.

The main indicators characterizing the soil quality of agricultural land is a state of agricultural land (arable land, meadows, pastures and orchards) area and its drainage situation. This is justified by several scientists (Boruks, Sumarakovs, 1972; Boruks, 2004; Aleknavicius, Gurklys, 2003) carried out a study finding that each country needed good quality, timely data on the drainage condition of the turn depends on the soil quality assessment. After Cadastral Information System data (on 01.01.2014.) occupies the largest area of land use types of forest with an area of 2,955,491.8 ha (46%) and agricultural land area of 2,429,774.7 ha (38%) (Figure 2.). After the land records of land use type distribution is stable and on January 1, 2013 did not change significantly. In recent years, maintained a downward trend of arable land and increase forest cover. In comparison with 2008 has decreased agricultural land of 4142 ha and the proportion of 0.1% of the cadastral information system established in the area, while forest area increased by 6,243 ha or 0.1% increase in the proportion of forest cover.

State Land Service of the land accounts of the drained agricultural area data were published by 2007. In Cadastre Information System registration of real property were recorded in the drained area, but an area that they can perform the appropriate function is unknown.

Therefore, in order to identify the actual extent of the area in the country, as well as to learn the views of specialists was carried out 109 local real property expert survey, referred to by the 79 local professionals.

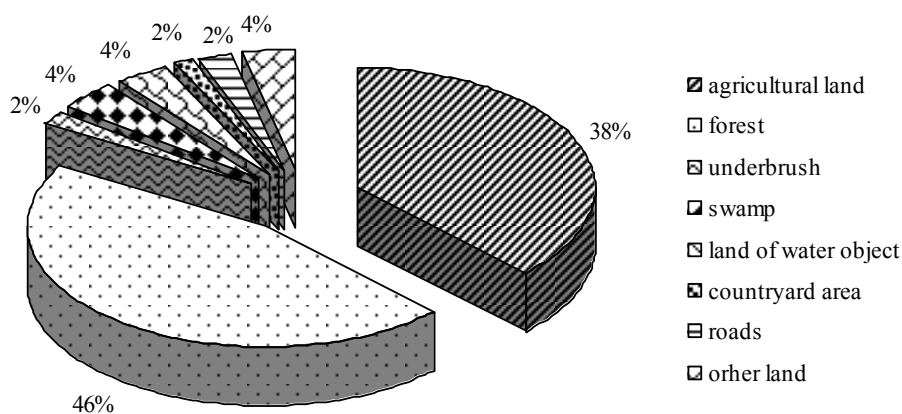


Figure 2. Distribution area of land use types (01.01.2014.)

The questionnaire's first question was "What is your local municipality area of agricultural land, agricultural land drained area, including the operating system of drainage area?" This question was received only four responses from Stopini, Auce, Adazi and Balvi counties. And also the response was incomplete, as was indicated in the

approximate area drained except Adazi county of the total agricultural land 1935.4 ha of drained agricultural lands up 1064.7 ha. But as a functioning drainage systems, land only Adazi county indicated an approximate area of 200 ha. Some counties in the questionnaires were accompanied by commentary that the information

on the agricultural area has still not been assembled counties, but access to its constituent parishes. However, the current state of agricultural land drainage or parishes, or counties is not available. The next question of the soil quality assessment was - "Do set your local parish average agricultural land quality assessment in points, in your opinion, is it consistent with the current situation?"

Total respondents were split as follows (Figure 3). – 19 believe that the agricultural land quality assessment is appropriate, 29 believes that the decreased but not more than 5 points, 18 believes that the reduction of the 5-10 points, 13 believes that declined by more than 10 points. None of the respondents answered that their municipality qualitative assessment should be increased.

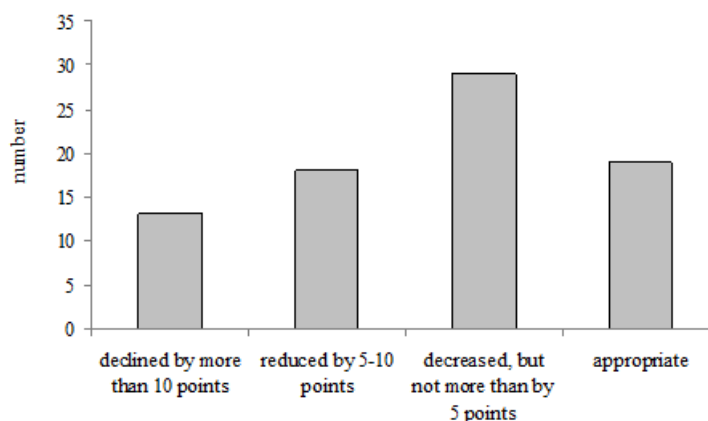


Figure 3. Respondents' assessment about compliance of land quality assessment (n=87)

Respondents' of statistical regions of the matter was marked by both common and different trends. Most respondents, 42% in Vidzeme, 46% in Latgale and 33% in Kurzeme region have recognized that the assessment is reduced, but not more than 5 points. Also, such an assessment reduction in some cases may significantly affect the cadastral value of land. For example, if the unit is located on agricultural land values in the first zone and the qualitative assessment of 52 points, then the base value is 1409 EUR/ha, and if not currently a qualitative assessment of 52 points, but has fallen by 5 points, so there are 47 points, then the base value of 1252 EUR/ha. Cadastral value is reduced by 156 EUR/ha. By contrast, in another case, if the unit is located in the agricultural land value in the first zone and the qualitative assessment of 58 points, then the base value is 1409 EUR/ha, and a decrease in a qualitative assessment of 5 points, the assessment is 53 points, as a result of quality assessment group remains constant and does not change the basic value of the remaining 1409 EUR/ha. Therefore, this change is examined in detail.

Zemgale region characterized by high quality agricultural land and asset evaluation and development of agricultural production, therefore 43% of respondents in the region observes that the qualitative assessment of their local government is appropriate. By contrast, the Latgale region, where these conditions, the response "appropriate" is given only 8% of respondents, while 46% say that a qualitative assessment has decreased by 5 points and 31%, that a reduction of 5 to 10 points.

Therefore, the questionnaire was followed by the next question - "Is it necessary to raise agricultural land quality assessment?" In this matter the respondents' opinion can say that it was ambiguous. Total 74 respondents said that the soil quality assessment has been updated with complex of state measures.

In assessing respondents division into regions, It may be noted that the Vidzeme and Zemgale regions, there is 100% consensus that the agricultural land quality assessment is updated with complex of state measures.

The difference is in Latgale respondents' opinion, the 18% notes that must be updated after the property owner initiative, while 82% support the need for updating with complex of state measures. By contrast, in the Kurzeme region of 8% and 5% in Riga region argues that soil quality assessment does not appreciate the update.

The study showed that the data used in the real property cadastral value in some cases not reflect the true situation. This requires significant research to improve data quality and streamline the real property cadastral valuation

CONCLUSIONS

- 1) Soil quality assessment is one of the most important indicators of the rural land value bases of cadastre development as well as in the calculation of the cadastral value.
- 2) According to the State cadastral information system of real property which is based on 1989 – 1991 year materials of soil mapping, parish

- average soil quality assessment is 37 points, which in currently farming conditions are not suitable.
- 3) In order to obtain systematic information about soil position and consequently there would be determine objective cadastral value of real property there should be carry out soil mapping which accord to FAO rules
 - 4) On the issue of soil quality assessment analysis results of the municipal staff of real property showed that only in 17% of Latvian municipalities this assessment is appropriate
 - 5) According to the research and questionnaire results of the municipal staff of real property, can be concluded, that in the state should be done voluminous event complex, which result would be updated soil quality assessment.

REFERENCES

- Aleknavicius P., Gurblys V., Maziliauskas, Aleknavicius A. (2003) Assessment of consequences resulting from abolishing the obstacles on land Transactions. *Estonian Agricultural University. Baltic Surveying '03*. Tartu – pp. 12.-22.
- Baumane V. (2009) Improvement of cadastral valuation models. In: *Proceedings of the International Scientific methodical Conference: Baltic Surveying 2009*. Tartu: Estonia University of Life Sciences, pp. 11.-15
- Baumane V. (2010) Cadastral valuations models. *Proceedings of the International Scientific Conference: Economic science for rural development, No 22*. Jelgava: LLU, pp. 68.-75
- Boruks A. (1991) Zemes vērtēšanas metodika. *LR LM Zinātniski tehniskās informācijas un propagandas centrs*. 116 lpp
- Boruks A. (2004) Dabas apstākļi un to ietekme uz agrovidi Latvijā. Rīga: LR VZD. 166 lpp
- Boruks A., Sumarokovs G. (1972) Zemes kvalitātes nozīme lauksaimniecībā. Rīga: Liesma. 225 lpp.
- Nekustamā īpašuma valsts kadastra likums (2005). *LR likums (15.12.2005.)* Latvijas Vēstnesis Nr.205 (3363) 22.12.2005.
- Kadastrālās vērtēšanas noteikumi (2006). *Ministru kabineta 2006. gada 18. aprīļa noteikumi Nr. 305*. Latvijas Vēstnesis, Nr. 72, 2006. gada 10. maijs.
- Par agrāro reformu Latvijas Republikā (1993). *Latvijas Republikas Augstākās Padomes 1990. gada 13. jūnija lēmums. Latvijas Republikas zemes likumošanas akti, I daļa*. Rīga: Baltika. 86 lpp.
- Par zemes reformu Latvijas Republikas lauku apvidos (1993). *Latvijas Republikas 1990. gada 21. novembra likums. Latvijas Republikas zemes likumdošanas akti, II sadaļa*. Rīga: Baltika. 120 lpp.