

LEASING ALGORITHM OF COMPULSORY CONSOLIDATION OF AGRICULTURAL LAND IN UKRAINE

Roman KURLITSIV¹, Nadiia KRYSHENYK², Nataliya ZHYDOVSKA³

¹Lviv Polytechnic National University, Department of the Cadastre of Territory, 79013, 12 Bandera street, Lviv, Ukraine; E-mail: kurlitsiv@ukr.net

²Law and Engineering Company «Roxal», Limited Liability Company, 79007, 21 Kleparivska Street, Lviv, Ukraine, E-mail: nadya_kryshenyk@ukr.net

³Lviv National Environmental University, Department of Accounting and Taxation, 1, V. Velykoho Street, 80381 Lviv, Ukraine, E-mail: znatalka_2909@ukr.net

Corresponding author: kurlitsiv@ukr.net

Abstract

The paper studied leasing algorithm of compulsory consolidation of agricultural land in Ukraine. The analysis revealed that fragmentation of land use is one of the main destabilizing factors which deteriorate the compactness of land massifs of the enterprise and cause growing production costs in the process of commercial activity. This situation leads to strip farming, and the non-use of such lands prevents rational management of the land plots being in the use of one person. The data regarding the normative monetary valuation of agricultural land plots outside the settlement was received through electronic services by the State Service of Ukraine for Geodesy, Cartography and Cadastre. The results reveal the algorithm of exchanging land plots as the main instrument of land consolidation in Ukraine. Development of the approaches to exchange of land plots along with redistribution of them enables immediate arrangement of land plots by making agreements. It facilitates simple consolidation of lands and creates conditions to solve the problems of land fragmentation.

Key words: land lease, land consolidation, land fragmentation, land massif

INTRODUCTION

In Ukraine, land reform started in 1990, with the following expectations: denationalization and privatization of the land of former collective farms, establishment of different forms of ownership and farming on the land, ensuring equitable development of the land, introduction of the market of agricultural land, and increased level of efficient exploitation of agricultural land, creating an efficient mechanism for the improvement of natural conditions and protection of agricultural areas [9].

Among the problems which agricultural producers face today, a particular focus is on the impossibility to cultivate fields as single land massifs because of so-called “checkerboard” (within one field there are land plots that are owned by one land owner and are cultivated by him/her, also land plots which are abandoned, and/or “others” land plots which are owned by other people and cultivated by other land users -land owners).

Currently, massifs of agricultural land in Ukraine are heavily partitioned and it is impossible to cultivate the small land plots by using large agricultural machinery. It is the consequence of the partitioning of 27.5 million ha of agricultural land (66% of the total area of agricultural land in Ukraine), which have been divided into land plots (shares) with an average size of 4 ha.

Therefore, a massif of agricultural lands with an average area of 100 ha is partitioned into dozens of land plots that are owned by dozens of people and several land users. Consequently, it is very difficult for farmers to avoid strip farming, i.e. the situation when a person has the right to use land plots within one massif of land but they do not have common boundaries. Thus, it is impossible to shape and cultivate the integral massifs of land.

Consolidation of agricultural lands is the next step declared in the land reform after adoption of the law on turnover of agricultural lands. Farmers have long demanded consolidation of

agricultural lands, and land users apply different algorithms of exchange to optimize using land plots and to accumulate integral massifs of land.

MATERIALS AND METHODS

The present research discloses the algorithm of exchanging land plots as the main instrument of land consolidation in Ukraine. Development of the approaches to exchange of land plots along with redistribution of them enables immediate arrangement of land plots by making agreements. It facilitates simple consolidation of lands and creates conditions to solve the problems of multi-purpose consolidation.

The theoretical and methodological basis of the research is made by a complex of methods, namely dialectic, system analysis, synthesis, cartographic, structural and functional analysis.

The information basis of the research is created by the current legislative and regulatory documents, electronic services of State Service for Geodesy, Cartography and Cadaster, State Statistics Service of Ukraine, and works of domestic and foreign scientists who studied the issue of land consolidation.

The study was conducted on the land use of Liuvais Private Company which is located within the area of Monastyryshche territorial community in Uman district of Cherkasy region (Fig. 1).

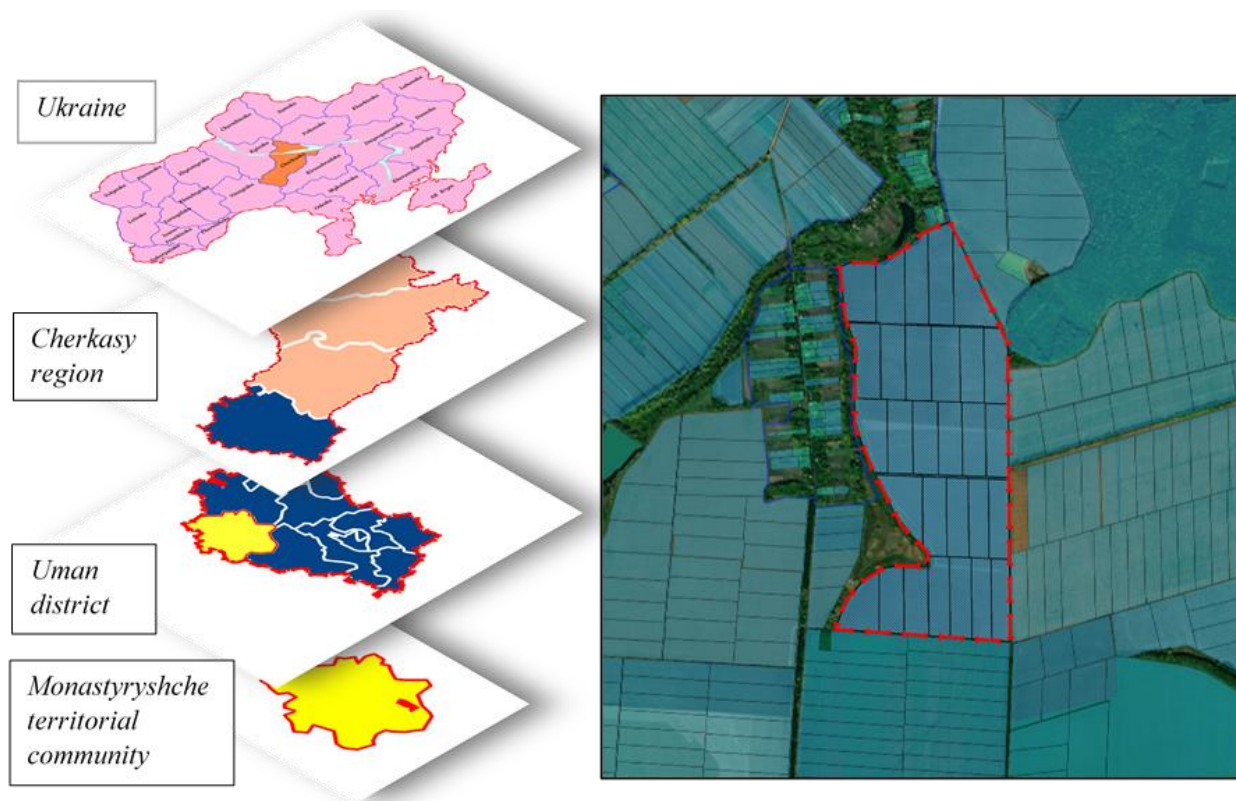


Fig. 1. Study area – territory of the Liuvais Private Company (Monastyryshche territorial community in Uman district of Cherkasy region)*

*Source: Completed by the authors according to the data [12].

The Liuvais Private Company has been running its activity since 2002. It is specialized in growing cereals (except rice), legumes and oil seeds. To run its business, the Liuvais Private Company cultivates the land massifs with the total area of 100 ha used

according to the lease agreements with 29 shareholders.

Fragmentation of land use is one of the main destabilizing factors which deteriorate the compactness of land massifs of the enterprise and cause growing production costs in the process of commercial activity.

RESULTS AND DISCUSSIONS

Nowadays, Ukraine greatly focuses its efforts on implementation of the European integration course, performance of international-legislative obligations, including the issues of development of local and regional democracy [10].

Land consolidation has proven to be an important instrument of rural development in Europe. It can enable farmers to become more competitive by removing fragmentation of parcels, and by allowing them to expand the size of their holdings [6].

Farmland fragmentation has generally been considered as negative for agricultural production and food security and equivalent to the increase in production costs leading to farm inefficiency [2, 8].

Land consolidation is a highly effective land management tool that allows for the improvement of the structure of agricultural holdings and farms, which increases their economic and social efficiency and brings benefits both to right holders as well as to society in general [17].

According to the recommendations of the Food and Agriculture Organization (FAO) of the United Nations for the Eastern and Central Europe, consolidation of lands is identified as an improvement of the structure of land plots to avoid the effect of fragmentation of lands for more efficient multi-purpose use of the rural area by balancing the demands of agriculture, landscape planning, environmental protection, recreation and transportation, particularly when the area is needed for building roads of particular importance [7] (Fig. 2).

Land consolidation – in whatever design is a powerful tool for solving structural problems and land use conflicts in rural areas [15] and an important planning tool for implementing environmental and rural development policy [16].

Consequently, most contemporary agricultural land policies aim to reduce fragmentation through land consolidation as a panacea to farmland fragmentation [3, 18].

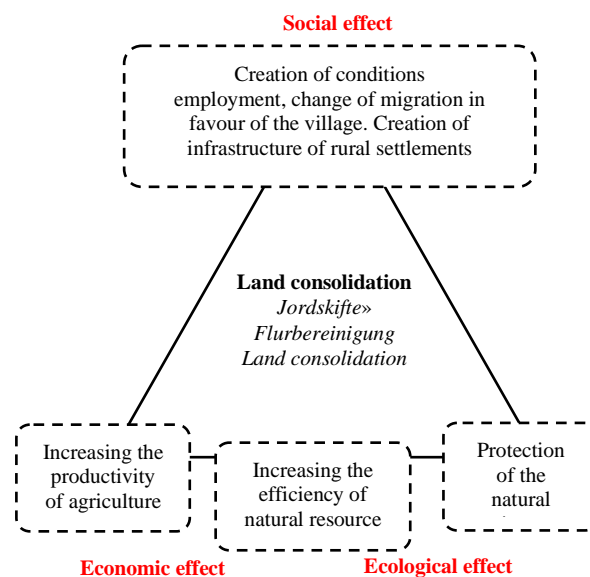


Fig. 2. Concept of land consolidation according to FAO*

*Source: Completed by the authors according to the data [4, 7, 11].

Besides the classical land consolidation programs, other instruments such as voluntary land parcel exchange, land banking and cooperative farming, were used to combat farmland fragmentation.

Fragmentation in land use is present when a single farm enterprise cultivates several plots (regardless of whether owned or leased) located in different places. Fragmentation of this type can hamper the efficiency of management and production because plot sizes are small and this imposes constraints on cropping and use of technology. Land leasing is widely used to circumvent this problem and to consolidate land [5].

Practice and traditions using different types of land consolidation models (voluntary or compulsory, simplified or complex) and well written legislation (with clear goal and objectives) provides encouragement for land owners to participate in land consolidation projects [14].

Land lease has long been the principal mechanism of land consolidation in Ukraine. Since January 1, 2019 the Law of Ukraine №2498 has entered into force and created regulatory fundamentals for improvement of the rules of land use in the massifs of agricultural land, particularly the opportunity to exchange the leased land plots.

The exchange can be applied referring to the land plots of all forms of ownership and is implemented by mutual agreements of lease or sublease of land plots. Therefore, owners and lessees of agricultural land plots located in the massif of agricultural land can exchange their rights to using land plots for the period of the lease agreement [13].

A massif of agricultural land – is a complex of land plots of agricultural purpose which consists of agricultural and non-agricultural land plots necessary for servicing them (land plots under field roads, melioration objects, commercial ways, runs, linear objects, objects of engineering infrastructure, as well as ravines, marshy lands, other lands which are situated within the land massif), have common boundaries and limited natural and/or artificial topographic elements (motor ways of common use, field protecting forest belts and other protecting planting, water objects, etc.) [1].

Hence, a massif of agricultural land can be defined as a complex of agricultural land plots (two and more) which have common boundaries and create a single area that is limited by field protecting forest belts and/or roads (including field ones). The appropriate information about it should be introduced into the State Land Cadastre. Thus, only partitioned land plots within one massif can become the objects of exchange.

The agreements on exchange of the rights to using lands can be concluded concerning the land plots which are intended for commercial agricultural production, farming activity and private farms. The agricultural land plots intended for private farms and farming activity located within the massif of agricultural land can be used by their owner or user for running commercial agricultural production without changing the purpose of such land plots.

The current legislation provides for the mechanism of forced exchange of the rights to land plots in the land massif initiated by the person holding the right to use a significant part of the agricultural land massif (at least 75% of all lands of the massif) [13].

A significant land user has the right to lease or sublease other agricultural land plots located

in the massif on the condition of transferring them to the owner or lessee of another land plot located in the same massif for the same period and under the same terms, in case that non-use of such land plots because of strip farming creates obstacles for the rational use of the land user's land plots.

The right to lease (sublease) land plots that is acquired by a person who has the right to use a significant part of the massif of agricultural land, in exchange for transferring the right to use another land plot, and is exercised with the following specificities:

(1) The term of the lease (sublease) should not exceed the term of the land plot use according to the agreement concluded in exchange.

(2) The size of the lease payment (payment for sublease) should correlate with the lease payment (payment for sublease) mentioned in the agreement concluded in exchange.

(3) The lessee does not have the preemptive right to purchase the leased land plot in case it is on sale.

(4) The lessee (sublease holder) does not have the right to get reimbursement for improvement of the leased land plot from another party of the agreement, as well as for extension of the agreement for the next term in case of objections of the other party of the agreement.

(5) In case there is no easy access from the edge of the massif to the land plot, the right to which is transferred in exchange, the person holding the right to use a significant part of the massif of agricultural land should ensure the land user's passage on foot and by vehicles to the land plot on the conditions of free easement.

(6) In case a person who holds the right to use a significant part of the massif of agricultural lands gets the right to lease (sublease) several land plots that belong to one owner, the land plots he/she proposes in return should have common boundaries.

On the studied area, the Liuvais Private Company has above 75% of the massif of land in its possession and therefore, has the right to use the newly introduced institute of land plot exchange because of strip farming. The owner of the land plot with the cadastral number 7123485700:03:001:0275 and area of

3.7086 ha, which is located within the massif of land, refused to extend the lease relations with the Liuvais Private Company and made decision to cultivate the land plot himself. The enterprise does not object and recognizes the owner's right to cultivate the land plot himself. However, the mentioned land plot is situated in the middle of the massif of land cultivated by the Liuvais Private Company and thus, the consequent strip farming cause difficulties in land treatment.

The mentioned drawbacks in land management cause additional costs for operation of agricultural machinery and loss of yield because of growing different agricultural crops on the same field and treatment with chemical agents that can make damage them as each of crops needs specific chemical elements that are not good for others.

Moreover, location of the land plot with the cadastral number 7123485700:03:001:0275 in the center of the massif of land creates difficulties and sometimes cultivation of it is loss-making because agricultural machinery can pass the way to the land plot only across the lands that are leased and cultivated by the Liuvais Private Company. In addition, the piece of land under the pathway to the land plot is not tilled that is also economically inexpedient and unprofitable for both parties as the land is getting covered with harmful and dangerous weeds.

Because of strip farming, the non-use of such lands prevents rational management of the land plots being in the use of one person. To avoid the obstacles for rational land management in the studied massif of land, the land plots should be exchanged.

The algorithm for exchanging the rights to use land plots in the massif of agricultural land has four stages.

1. A significant land user appeals in written form to the owner (lessee) of the land plot with the proposal, where he/she identifies the land plots which he/she has the right to use and proposes to exchange, and the amount of property damage due to such exchange.

The following is attached to the proposal:

- a draft agreement of lease (sublease) signed by one party;

- a draft agreement of lease (sublease) of the land plot, the right to use which is proposed to be transferred in exchange, signed by one party;

- a certified copy of the agreement of lease of the land plot (if the significant land user is also the lessee of the land plot the right to use which is proposed to be transferred in exchange).


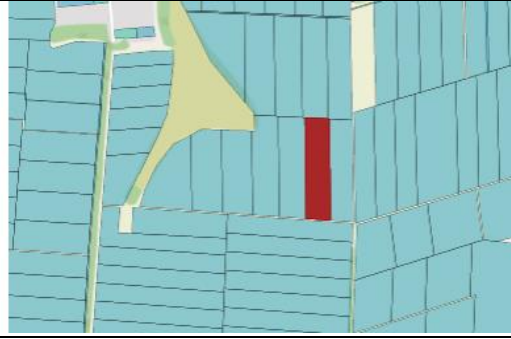
According to the known approaches, modeling of redistribution is usually preceded by the exchange of land plots, equal in area, with consideration of the soil quality or violation of price within the set permissible range.

At that stage, it is determined that the normative monetary value of the land plot with the cadastral number 7123485700:03:001:0275 accounts for UAH 136403.83. The land plot with the cadastral number 7123485700:03:001:0295 which has the area of 3.0595 ha and the normative monetary value of UAH 126,504.04 is proposed for exchange. It is located in the mentioned massif of land, but on the edge that enables its cultivation without the necessity to cross the mainland area, significantly facilitates the cultivation of the whole massif and reduces the risks of making harm while treating the land with chemical substances.

The land plot with the cadastral number 7123485700:03:001:0295 proposed for exchange is in the use of the Liuvais Private Company on the right of lease according to the land lease agreement №881 of 27 November 2017 concluded by the land owner for the period of 10 years with the set lease payment of 4.5% of the normative monetary valuation annually (Table 1).

Examination of the size of land plots and their normative valuation shows that the land plot proposed for exchange is by UAH 9,899.79 cheaper than the land plot with the cadastral number 7123485700:03:001:0275, but such difference accounts for only 7.26% of its price. Such a difference in value is permitted by law.

Table 1. Characteristics of the land plots proposed for exchange*

Configuration		
The cadastral number	7123485700:03:001:0275	7123485700:03:001:0295
Area, ha	3.7086	3.0595
Normative monetary value, UAH	136403.83	126504.04

*Source: Completed by the authors.

In addition, referring to the category of lands, i.e. agricultural lands, and the type of lands, i.e. arable land, the land plot is free of real estate objects and thus, its evaluation and amount of reimbursement have not been determined.

To reimburse the price difference, the Liuvais Private Company proposed and mentioned in the agreement the condition of compensation for losses that can occur because of such difference in the form of the annual payment of 4.5% of the difference that accounted for UAH 445.50 at the time the agreement was concluded.

2. Within one month from the day of receiving the offer, the owner or lessee is obliged to consider the appeal and sign the lease (sublease) agreement or provide a written reasoned refusal to conclude it.

To avoid strip farming and to ensure efficient use of land, the Liuvais Private Company appeals to the owner of the land plot having the cadastral number 7123485700:03:001:0275 with the proposal to make an agreement of sublease of a similar land plot in that massif of land, but at its edge. However, the land owner can reject the proposed conditions of exchange.

In case of a negative or unreasoned response, or no answer, the Liuvais Private Company can claim to a court because the enterprise runs its economic activity in the field of growing commercial agricultural products on the leased lands within the administrative

borders of Monastyrshche territorial community in Uman district and is a significant land user.

The law "On Land Lease" clearly defines the cases when the conclusion of an agreement in court is not allowed, particularly:

- if the land plot belongs to the area of perennial plantations and perennial plantations are laid on it;
- if real estate objects are located on the land plot;
- if the land plot belongs to non-agricultural lands of agricultural purpose (except for field roads located inside the massif of agricultural lands);
- if the land plot has common boundaries with the massif of agricultural land and its location does not create overlapping for the person who has the right to use a significant part of the massif of agricultural land;
- if the land plot is located in a different massif of agricultural land than the one transferred for use in exchange;
- if the land plot does not belong to the category of lands for commercial agricultural production, personal farms or farming activity;
- if the land plot has a different composition of land and topography;
- if the land plot has a normative monetary value, which differs from the normative monetary value of the land plot transferred for use in exchange by more than 10 percent.

The Liuvais Private Company has made numerous proposals to make an agreement

according to which the land owner will get a similar land plot in the same massif of land to lease, but at the edge, while the Liuvais Private Company will cultivate his land plot in exchange. In all cases, the land owner refused the proposals of the Liuvais Company based on his property rights. However, in this legal relationship, the property rights are not a sufficient basis for refusal to conclude the agreement of land plot exchange.

Thus, the land legislation approves that in case of negative or unreasoned refusal, or no reply, the initiator may apply to the court. As a result, the Liuvais Private Company is forced to make a claim to the court on the issue of concluding such an agreement through judicial procedure.

The court's decision to recognize the lease (sublease) as concluded is the basis for state registration of the right to lease (sublease) the land plot in accordance with the law.

3. State registration of the right to lease (sublease) a land plot in accordance with the procedure prescribed by law.

The information on exchange of the right to use land plots should be introduced as additional data to the State Register of Property Rights to Immovable Property in the description of the object of property right with identification of the subject acquiring the right and the period of exchange.

Although the agreements of exchange of the rights to land plots are compulsory, the information introduced into the State Register of Property Rights to Immovable Property will provide additional defense for land users from land raiding and threats of land squatting.

4. Written notification of the lessor.

Lessees of land plots must notify the lessor in writing on the exchange within five days from the date of state registration of the right to sublease. The written notice shall be sent to the lessor by registered letter with acknowledgment of receipt or delivered with a receipt.

CONCLUSIONS

The regulations introduced in Ukraine to ensure exchange of the rights of using land

plots by concluding mutual agreements of lease or sublease of the corresponding land plots between land users have provided the opportunity for land consolidation. However, in practice, the procedure needs improvement to settle the following problem issues:

(1) It is difficult to implement the norm of acquiring the status of a significant land user to get the right of using other land plots in the massif of land. It is because of the red tape procedure of inventory of the massifs of agricultural land and spending costs for shaping all land plots located in the massif of land even if the significant user is not interested to use them.

(2) The current legislation enshrines the opportunity to exchange the rights to use land plots that are located within one massif of land. In practice, however, it is often needed to exchange land plots which are located in different massifs of land in order to consolidate agricultural land of land users.

(3) The legislation approves exchange of the rights only by concluding agreements of lease and sublease of land plots. It is not considered in the law that land plots within one massif of land can be objects of the right of emphyteusis or the right of permanent use which cannot be transferred for the secondary using.

Considering present realities, the market of property rights will be limited in the nearest years and agricultural producers will continue to acquire the right of using land plots. Hence, it is necessary to develop mechanisms of agricultural land consolidation to satisfy the demand of amalgamation of agricultural land plots, as well as needs of land owners or land users. Therefore, consolidation of agricultural land should be performed in one or several possible ways:

- exchange of land plots;
- exchange of the rights of using land plots;
- purchase of land plots;
- amalgamation of adjacent land plots;
- changes of the boundaries and arrangement of land plots;
- change of the category and/or the purpose of land plots use;
- other ways in compliance with the laws.

It is also worth noting that people who intend to consolidate agricultural land plots should individually choose the acceptable way considering if they are land owners or land users and if they can acquire the property right of agricultural lands. Moreover, it is extremely important to control the legally enshrined opportunity of exchange of the rights to using agricultural land plots does not violate the rights of land owners and land users.

REFERENCES

- [1] About land management: Law of Ukraine dated May 22, 2003, No. 858-IV, <https://zakon.rada.gov.ua/go/858-15>, Accessed on 20 September 2022.
- [2] Akkaya, A.S.T., Kirmikil, M., Gündoğdu, K.S., Arici, I., 2018, Reallocation model for land consolidation based on landowners' requests. *Land Use Policy*, 70: 463–470.
- [3] Asiama, K., Bennett, R., Zevenbergen, J., Mano, A.D.S., 2019, Responsible consolidation of customary lands: A framework for land reallocation, *Land Use Policy*, 83: 412–423.
- [4] Attenberger, J., 2002, The right mix of instruments – land consolidation, land management and land banking in Bavaria, Meeting documents of International Symposium "Land Fragmentation and Land Consolidation in CEEC: A gate towards sustainable rural development in the new millennium". http://www.fao.org/fileadmin/user_upload/reu/europe/documents/LANDNET/2002/Germany_bavaria_paper.pdf, Accessed on 20 August 2022.
- [5] Di Falco, S., Penov, I., Aleksiev, A., van Rensburg, T., 2010, Agrobiodiversity, farm profits and land fragmentation: Evidence from Bulgaria, *Land Use Policy*, 27: 763–771.
- [6] FAO, 2008, Opportunities to Mainstream Land Consolidation in Rural Development Programmes of the European Union. Rome: FAO-Land Tenure Policy Series.
- [7] FAO, 2013, The design of land consolidation pilot projects in Central and Eastern Europe: FAO Land Tenure Studies no. 6., Rome, <https://www.fao.org/3/Y4954E/y4954e00.htm>, Accessed on 20 August 2022.
- [8] Jürgenson, E., 2016, Land reform, land fragmentation and perspectives for future land consolidation in Estonia. *Land Use Policy*, 57: 34–43.
- [9] Kuryltsiv, R., Hernik, J., Kryshenyk, N., 2018, Impact of land reform on sustainable land management in Ukraine, *Acta Scientiarum Polonorum, Formatio Circumiectus*, 17 (2): 105–115.
- [10] Kuryltsiv, R., Hernik, J., Kryshenyk, N., Zhydovska, N., 2018, Land inventory as the instrument for development of amalgamated territorial communities in Ukraine. *Acta Scientiarum Polonorum, Formatio Circumiectus*, 17 (4): 97–108.
- [11] Malashevskaya, O. A., 2019, The Ecological and Economic Basis of the Existing Agricultural Land Ownership and Land Tenure Improvement, Qualification research paper printed as manuscript, Kyiv, National University of Life and Environmental Sciences of Ukraine, 249 p.
- [12] Official site of the State Service of Ukraine for Geodesy, Cartography and Cadastre, <https://land.gov.ua/>, Accessed on 20 August 2022.
- [13] On the lease of land: Law of Ukraine, dated on October 6, 1998, No. 161-XIV <https://zakon.rada.gov.ua/go/161-14>, Accessed on 20 September 2022.
- [14] Pašakarnis, G., Morley, D., Malienė, V., 2013, Factors Influencing Land Consolidation Success: Lessons Learned in Lithuania, In: E. Hepperle, R. Dixon-Gough, V. Malienė, R. Mansberger, J. Paulsson, & A. Pödör eds. 1st International and Interdisciplinary Symposium 'Sustainability: Focus on Urban and Peri-Urban Development'. Liverpool, vdf Hochschulverlag, p.121–131.
- [15] Thomas, J., 2007, Future Approaches to Land Development across Europe – preliminary results of the EU-INTERREG III C project FARLAND, In: UNECE WPLA Workshop. Munich.
- [16] Van Dijk, T., 2002, Export of planning knowledge needs comparative analysis: the case of applying Western land consolidation knowledge in Central Europe. *European Planning Studies*, 7: 913–924.
- [17] Veršinskis, T., Vidar, M., Hartvigsen, M., Mitic Arsova, K., van Holst, F., Gorgan, M., 2020. Legal guide on land consolidation: Based on regulatory practices in Europe, FAO Legal Guide, No. 3. Rome.
- [18] Vitikainen, A., 2004, An overview of land consolidation in Europe, *Nordic Journal of Surveying and Real Estate Research*, 1: 25–43.