IMPROVEMENT OF THE MECHANISMS OF LAND USE OF FARMING ENTERPRISES IN UKRAINE

Vasyl LYPCHUK¹, Liudmyla HNATYSHYN², Oksana PROKOPYSHYN²

¹Stepan Gzhytskyi National University of Veterinary Medicine and Biotechnologies Lviv, 50, Pekarska, 79010 Lviv, Ukraine, Phone: +38 096 46 51 500; E-mail: wlipczuk@ukr.net ²Lviv National Agrarian University, 1, V. Velykoho str., Dubliany, Lviv Region, 80381, Ukraine, Phones: +38 067 34 16 399, +38 097 22 71 208; E-mails: gnatluda@ukr.net, os378@ukr.net

Corresponding author: os378@ukr.net

Abstract

The aim of the research is to argue theoretical fundamentals and develop practical recommendations concerning improvement of the mechanisms of land use of farming enterprises in Ukraine. The calculated indicators of land supply, presented in the paper, confirm the tendency to consolidation of farms; actualization of the problems of establishment of new farms by restriction of lands and still not organized turnover of agricultural lands; forcing out of the system of landholding and land use. It is defined that family farming eventually demonstrates better indicators of efficiency of land use and ecological load on land (a lower level of plowing). The research characterizes legitimation of agricultural land turnover in favor of development of family-farming model of agriculture, protection of village communities, multi-functional development of rural territories, food self-sufficiency of the state and environmental protection. The work proposes to provide free land parcels, which are determined by the audit, to the people, who wish to start or expand their family farming not by means of an auction, but by immediate obtaining of land according to the resolution of local authorities on the base of land contests. In the contests, the principle criterion to name a winner considers conditions of the following land parcel use and consistency of performance of the future farming enterprise.

Key words: farms, land, land use, production potential

INTRODUCTION

Nowadays, Ukraine experiences intensive use of land resources and a high level of economic employment of land areas. In 2017, agricultural lands constituted 68.7 % of the total area of Ukraine, and the area of plowed land occupied 78.4 % [12, p. 65]. Scientists report about poor efficiency of application of organizational and economic mechanisms of rational land use, imperfect management of use, protection and reclamation of land resources. It causes deterioration of the land fund quality [7, p. 149–150]. Land is the main asset in agriculture and a key element of production potential of farming enterprises [10, p. 80]. However, position of farming enterprises in the organizational system of agrarian production directly depends on the possibility to become a participant of market transactions concerning land parcels. In that aspect, development of lease relations, being

capable supply necessary to resource parameters of economic subjects, particularly concerning land, is a crucial factor [9, p. 14]. Creation of production potential of farming enterprises is a complicated and continuous process, which expects a balanced and proportional combination of the required labor, land and material resources [5, p. 97]. Thus, land supply is a factor, which determines other resources, on one hand, and a result of production factors interaction, on the other hand.

The mentioned issues confirm timeliness of the topic of the research. It needs substantiation of scientific and practical approaches concerning land use of farming enterprises in Ukraine to secure their competitive advantage.

MATERIALS AND METHODS

Methodological basis of the research includes

a set of methods of scientific cognition. A complex application of the methods enables formation of theoretical and applied aspects of improvement of the system of land use and landholding of farming enterprises. Particularly, among the used method there are: the system method – to assess conditions of land use of farming enterprises; analysis and synthesis - to determine tendencies in change of the indicators of efficient use of land, as an element of production potential and generalization of the tendencies of land use by farming enterprises of different sizes with consideration of a regional feature; the grouping to make method of differentiating distribution of faming enterprises by the feature of land use; correlation method – to examine impact of the average size of land use on financial result of farming enterprises; graphical method - to supply visual depiction of materials.

RESULTS AND DISCUSSIONS

The problem of production potential formation is of particular importance for new-established farming enterprises in Ukraine, that is caused by a set of reasons and conditions. First, it is a limit of lands, particularly area of reserve lands, which are to be supplied to the people, who wish to start their private agrarian business. Thus, area of land use is a limiting factor for farming enterprises and sometimes it results in their inefficient performance [11, p. 23]. However, there is an urgent need to study the tendencies of land supply for farming enterprises, particularly in the Carpathian region, which possesses small area.

One should note that in the Carpathian region and in Ukraine generally, there is a tendency to increase of the area of agricultural lands and arable lands, employed by farming enterprises [4, p. 34-35]. In 2010-2017, in Ukraine, area of agricultural lands, used by the farmers, increased by 289.3 thousand hectare, and in the Carpathian region - by 15.8 thousand hectare [5, p. 67; 10, p. 128]. farmers' lands expands Area ofconsolidation of farmers and by lease of land parcels. It is remarkable that farmers attract large area of agricultural lands on the base of lease. A high degree of land plowing by farming enterprises confirms specialization of domestic farming in crop production and demonstrates disproportion of the branch structure. Particularly, in 2017, the share of arable lands in the total area of agricultural lands, used by farmers in the Carpathian region, constituted 9.6 %, and in Ukraine – 97.3 % [5, p. 128].

Land use is not just an important criterion of farming enterprises performance, but the principal factor for determining of their size. On one hand, size of an enterprise is a measuring indicator of the enterprise efficiency, and, on the other hand, it is a result of the enterprise performance. Size of a farming enterprise should be set to secure rational use of the system of machines, fulltime employment of workers and members of the farmer's family, as well as to achieve twice more reward per a unit of land and invested capital. Moreover, the farmer should get profit from application of modern technologies. Thus, it is very important to study sizes of farming enterprises according to the factor of their land use in order to determine their capabilities and results of production potential reproduction.

Domestic and world practice has a wide system of natural and cost indicators concerning assessment of enterprises sizes. In is worth mentioning that in the countries of the European Union, assessment of sizes is performed referring to the indicator of an "economic size of a farm" [1, p. 30]. In the USA, farms with the sales volume under 40 thousand USD annually are considered noncommercial, because they do not provide full-time employment of the farmer. In Germany, a minimum size of a farm should secure full-time employment for two people all year round and their earnings should be at the same level as industrial employees earn [3, p. 163]. In Lithuania, a land parcel of 10-50 ha is appropriate for a farm performance. According to the criterion of land area per one farm, the Carpathian region is far below the average indicator in Ukraine. Thus, the average size of a farming enterprise in

Ukraine in 2017 reached the mark of 130.5 ha, that was by 70.4 ha above the level of 2000, and farming enterprises Carpathian region – 43.7 ha. According to the feature of land use in 2017, the average size of farming enterprises in the Carpathian region was three times less, as compared to the average figure in Ukraine [8, p. 172; 5, p. 131]. One should note that farmers often give preferences to making agreements of lease for a longer period, particularly from six to ten years, or even above ten-year term. Farming enterprises with the average area of land use of 100 ha exceed the size of the similar model in the European countries. They constitute the economic basis for formation of the middle class of owners in a village [13, p. 34].

The correlation dependence of a net financial result per one farming enterprise on the average size of farming enterprises demonstrates a liner dependence (Fig 1). To define some regularities, farming enterprises in Ukraine are grouped into 31 categories (from 0 to above 2,000 ha of arable lands per one farm), according to the area of arable lands.

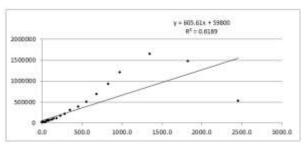


Fig. 1. Dependence of financial result per one farm on the average size of land use by farming enterprises, 2017.

Source: calculated and designed, basing on the information of the State Statistics Service of Ukraine (form 2-farms)

The obtained results confirm relations between the indicators. However, the relations are not close enough (correlation ratio equals 0.62). It suggests that larger farming enterprises get more profit of their performance, while 62 % of profit per one farm depends of the size of its landholding, and 38 % – on other factors.

The linear dependence is destroyed by the obvious fact, observed at the Figure. It

demonstrates that level of financial results of farming enterprises of above 2,000 ha of area is actually equal to the indicator of the farms with the average size of land use, i.e. 500 ha. To explain the tendency, it is necessary to refer to primary data. The authors of the work note that the groups of large enterprises (above 1,250 ha of arable lands per one enterprise) include a great number of so-called formal farms, which are either registered for some false people, or submit land to sublease. Thus, possessing but not using the land, they cause disagreements, which influence the total indicator of the groups of farming enterprises.

It is worth mentioning that in the Carpathian region there is deficiency of lands. Thus, market turnover of lands should be started with total inventory of all land resources. Performance of such audit provides an actual picture of agricultural land use in terms of landholders and land-users, relating to each land parcel on the territory of a definite administrative-territorial unit. Such state initiatives can contribute to the maximum focus of farming enterprises on economic employment of those free land parcels. However, according to the introduced monitoring, the inspection is made on the lands of state ownership, which are not used. Thus, local authorities initiate to take those free land parcels to the auction for sale of lease right. Finally, establishment of a new farming enterprise or expanding of the existing one can be fulfilled only through land purchase. However, a farmer will also face some tax load along with the cost of land purchase, due to such transaction. Nowadays, to establish a farming enterprise one should have a considerable seed capital. Moreover, such course of actions can have negative effects if the purchase and registration of land is done by power familiar people using dummy names. Thus, an optimal way to regulate such situation is to support the further development of farming, particularly legal adoption of a maximum size of a land parcel for running of a farming business.

In Ukraine, sizes of farming enterprises variate considerably. In 2017, the largest

share (3.4 %) was taken by the farms with the sizes of land area from 20 to 50 ha, but they possessed only 8.7 % of agricultural lands. Small farms, i.e. the farms under 20 ha, constituted only 29.1 % and employed 1.9 % of agricultural lands [12, p. 173]. One can conclude that farming enterprises try to expand their land area. It will secure more effective use of the productive potential. Disintegration of the structure of land use and misbalance of the market of agricultural products have caused a substantial distortion of the structure of their production [6; p. 35]. Monopolization of sales channels by large agricultural enterprises causes loss profitable positions by farms. Sales schemes for most kinds of agricultural product, which would consider interests of small-goods enterprises, are not developed, particularly concerning wholesaling of fresh products [2, p. 8].

Contrary to the distribution of farming enterprises by sizes generally in Ukraine, where observes one the tendency consolidation, farming enterprises in the Carpathian region are still of smaller sizes, but number of the small farms exceeds the number of even medium-size Particularly in 2017, in the Carpathian region there were almost 70 % of farming enterprises with land area under 50 ha. However, such great number of farming enterprises is sometimes inconsistent with the share of land. Thus, in 2017, the mentioned aggregate of farming enterprises cultivated approximately 17.1 % of agricultural lands. It stresses the scale of land use by larger farming enterprises. Small area of lands use should produce the situation when farming in the Carpathian region is in avant-garde of development of family-farming traditions.

However, the picture concerning examination of the average sizes of farming enterprises will be not complete, and the situation will be not clear without consideration of the phenomenon in dynamics (Fig. 2).

The presented histogram vividly demonstrates reduction of the number of farming enterprises in the groups with less land use, and increase of the number of enterprises of medium and large land use. Following the goal of family farming development on the example of the best European samples, the radical reduction of the number of farming enterprises in the groups up to 10 ha, as well as in the group from 10 to 20 and from 20 to 50 ha of agricultural lands, raises fears. Farming enterprises of such sizes could be a fundamental of the national farming, could develop traditions of unique supply agricultural products, particularly of animal origin. It is obvious that family farms can hardly meet competition with large farming enterprises. Thus, the state should focus additional regulators concerning protection of small agricultural producers. It enables increase of the total number of farming enterprises, rise their level of competitive capacity, intensify social responsibility of such kind of agrarian business.

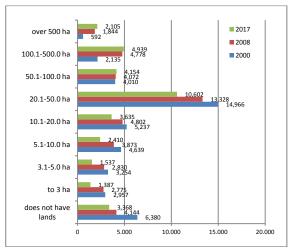


Fig. 2. Transformation of farming enterprises distribution according to the area of agricultural lands, unit

Source: [8, p. 138; 12, p. 173]

There are no established land relations, and eventually negative results of operation activity of farming enterprises can deteriorate image of farming as a particular form of economic activity in a village. It often happens that, having lost any expectation of just land relations and results of farms' performance, peasants initiate the processes of giving their land back to leasing holders. It mostly forces reduction of the number of farming enterprises. Other farming enterprises

make new agreements concerning the released land and thus, they expand their land use.

However, in the market environment, it is not always reasonable to state that efficiency of agricultural activity is an exclusive function of a farm size. Nowadays, there are many examples, which confirm that "small formats can create great things, i.e. perform quite efficiently, basing on the available level of production potential. It is clear that solution of the problem of land use of farming enterprises needs a differentiated approach, which should first determine all aspects of productive and commercial activity of small and medium-size enterprises.

It is the fact that small farms are more competitive from the position of response to changes of the market conjuncture. They can faster adapt to the changes in financial and pricing policy of the state, more efficiently react to the needs in management of productive and sales processes. However, small family farms do not secure efficient use of machinery, particularly in crop production, because the effect of a large-scale production is not achieved. There are also high risks of agricultural activity, which are caused by unexpected weather conditions. In combination with the small scales of production, the risks make difficulties in the system of crediting. Small-goods production does not always guaranty that the farmer and his/her family get the size of income, which is equal to their expenditures. Moreover, small family farms are incapable to solve food problems in the national terms. They are not quite efficient a priory, because small land area and livestock do not expect total use of the findings of science and technics.

Thus, theory and practice give a clear substantiation that the best results of operation are particular for the large farming enterprises. However, it should not be accepted as an axiom, because efficiency of anything depends on many subjective and objective factors. It is worth mentioning that in the countries of the Western Europe, farms with the area of 20–50 ha are considered the most efficient ones. Procedure of modification of the established

regularities and traditions of farming in foreign countries is not always reasonable under the national realities. Nevertheless, the social focus in land relations is always actual, because the issue of farming in Ukraine has transferred from the economic sphere to the social one. It is particularly true for inheritance and gifting of land parcels as an instrument and opportunity of a continuous performance of farming organization.

Under Ukrainian conditions, sizes of farming enterprises immediately depend of land possession by rural residents, while it is different in different regions. One should note that in terms of regions, sizes of land shares, owned by peasants, are radically different. For instance, in the Carpathian region, the average size of land parcels does not exceed 1.5 ha. It demonstrates a high degree of parceling of agricultural land area in the region. In contrast, peasants of the southern regions of Ukraine have got land parcels of 12–14 ha as result of land parceling. However, possessing such precious resource, peasants do not always wish to run their personal small business, i.e. they do not start their individual business in a village. The reasons of such situation include inappropriate national legislature, absolute power of controlling authorities, enslaving credit terms of banks, etc.

Nowadays, the problem of establishment of the appropriate land market in Ukraine faces numerous warnings and speculations concerning possible consequences of the process. Small producers have fears that most of the sold lands will be owned by agroholdings, i.e. automatically possessed by foreigners. Scientists consider the market of agricultural land through the protective paradigm. To their mind, lifting of the moratorium on sale of agricultural land should contribute to gradual transformation of small households into family farms [14, p. 96]. Thus, the land market should perform only for the sake of farmers and small landholders. Farming is crisis-resistant, and totally meets the interests of villages and peasants, as it has total territorial and social adaptation to rural realities, particularly family farming [14, p. 92].

The Fig. 3 demonstrates a developed mechanism for implementation of the system of land use and land possession.

Regardless of the adopted changes, the laws do not describe a clear procedure as to obtaining of land parcels for starting of family farming enterprises.

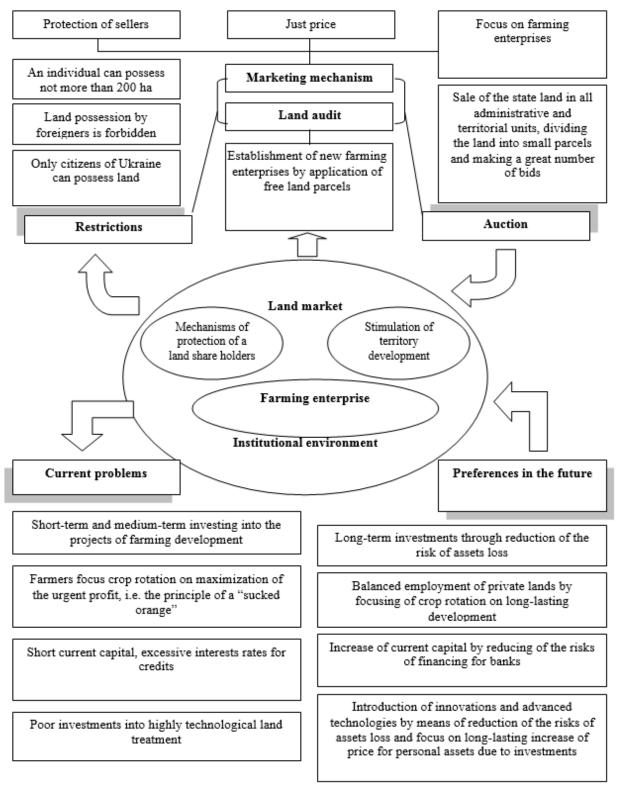


Fig. 3. Transformation of the paradigm of the system of land use and landholding in favor of farming enterprises Source: own concept.

It is obvious that if a farm is of a family type and the status defines some preferences, it should expect a simplified procedure of creation of the enterprise's land fund. Thus, the land parcels, detected by the audit, should be first directed at establishment of new farming enterprises. The order, proposed by the authors of the article, expects directing of the land parcels to the people, wishing to establish a farming enterprise not by means of an auction, but through immediate obtaining according to the resolution of local authorities on the base of land contests. Winners of the land contests should be named not according to the money criterion, but considering conditions of the land parcel use and consistency of the future farm performance. Ukraine should define its priorities concerning what is primary, either highly efficient production or well-being of peasants. Unfortunately, combination of the two goals is be always possible. Thus, farming can be a factor for achievement of a multi-effect of the goals, i.e. security of food safety on the base of efficient economic activity and rise of social standards on rural territory.

CONCLUSIONS

In the system of landholding and land use, there is a clear tendency to consolidation of farming enterprises. The work argues the timeliness of the problem of establishment of new farms because of limited land area. Thus, farming enterprises of the Carpathian region still have rather small sizes of land use, while the number of small farms is large. Redistribution of farming enterprises in the direction to increase of the number of large enterprises, which operate as large-scale producers, contradicts with the tendencies, caused by land reforms in the countries of Europe. Support for development of family farming, which eventually demonstrates higher indicators of efficiency of land use and ecological load on land (a lower degree of plowing), will contribute to arrangement of the branch structure and secure sustainable agricultural land use.

The tendency to consolidation of farming enterprises, actualization of the problem of establishment of new farms by limiting of land area, not properly regulated transfer of agricultural lands, and driving of farmers out of land market have caused transformation of the paradigm of land use and landholding. Its target function is focused on the interests of farmers and small landholders. The model of land market, which is suitable for farmers, should be developed on the fundamentals of uncompromising adequate correlation of family farming and corporative-latifundia types of farming. It requires an adapted procedure to detect unemployed lands and supply the lands for those people, who wish to establish a farming enterprise through land contests, forcing development of villageprotective models of agrarian organization.

ACKNOWLEDGMENTS

The research supplies the mechanism for implementation of the system of land use and landholding in favor of farming enterprises. The mechanism is approved and considered Department of agro-industrial development in Lviv region of the State administration of Ukraine for development of practical measures concerning implementation of the strategy of development of Lviv region until 2020 and a complex program of support development of agro-industrial production in Lviv region for 2016-2020 (information sheet $N_{\underline{0}}$ 01-37/8 віл 05.05.2018).

REFERENCES

[1] Agriculture, forestry and fishery statistics. Statistical Books. 2016 edition, pp.30. http://ec.europa.eu/eurostat/documents/3217494/77778 99/KS-FK-16-001-EN-N.pdf/cae3c56f-53e2-404a-9e9e-fb5f57ab49e3, Accessed on Dec. 21, 2018. [2]Borodina, O.M., Heiets, V.M., Hutorov, A.O., Kyryzuk S. V., Mishchenko N. M., Prokopa I. V., Rykovska O. V., Iarovyy V. D., 2012, Ukrainian model of agricultural development and its socio-economic reorientation: scientific report, Kyiv, pp.8. [3]Fudin, A.F., 1987, Economics of agriculture of foreign countries: development of capitalistic countries, Moscow: Izd-vo UDN, pp.163.

Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development Vol. 19, Issue 3, 2019

PRINT ISSN 2284-7995, E-ISSN 2285-3952

- [4]Hnatyshyn L.B., 2014, A place of farming is in the modern model of agrarian sector of Ukraine. Black Sea Scientific Journal of Academic Research, 2014, 09(02): 33–38.
- [5]Hnatyshyn, L.B., 2018, Production potential of farming enterprises: monograph, Lviv: Spolom, pp.67, 97, 128, 131.
- [6]Hnatyshyn, L., Prokopyshyn, O., 2015, Evaluation of production processes of farms in Carpathian region. World of science and innovations, 2015, 2(9): 32–41.
- [7]Kolodiichuk, I.A., 2010, Conceptual fundamentals of market mechanisms modernization in the field of land use of Ukraine. Regional economics, 2010, 3:148-155
- [8] Lypchuk V. V., Hnatyshyn L. B., Kordoba O. M., 2010, Farms: state, problems and strategies of development. Lviv: Magnolia-2006, pp. 138, 172.
- [9]Manko, I.P., 2005, Application of money assessment of land in land relations regulation in Ukraine: extended abstract of Candidate of Economics Dissertation, Uzhhorod, pp.14.
- [10]Onysko, S.M., Lypchuk, V.V., Berezivskyi, P.S., Voronyi, I.V., 2001, Regional peculiarities of establishment and performance of farming, Lviv: Ukraiinski tekhnolohii, pp.80, 128.
- [11]Pakholchuk, O.I., 1997, Development of land use of peasants' (farming) enterprises. Economics of AIC, 12:22-24.
- [12]Prokopenko, O.M., 2018, Agriculture of Ukraine in 2017: statistical collection, Kyiv: State Statistical Committee of Ukraine, pp.65, 173.
- [13]Sabluk, P.T., 2008, Problems of security of agroindustrial production profitability in Ukraine in the post-industrial period. Economics of AIC, 2008, 4:19-37.
- [14]Zhuk, V.M., 2017, Turnover of agricultural lands in the village-protective model of agricultural structure of Ukraine. Research center "Institute of Agrarian Economics", pp.92, 96.