Abstract

This article presents the existing problems of formation and further functioning agricultural land market with current trends in greening agricultural production and changes in the strategic reorientation of undertakings in agricultural markets. In this regard, there were suggested the best marketing strategies for businesses depending on their pricing strategy and evaluated problematic aspects of land reform in Ukraine. Attention is paid to the problems of further European integration of Ukraine in the context of modern land reform. The conditions of the institutional development of land relations in the territory of Ukraine and their influence on the marketing and competitive environment of the farms were evaluated. This aspect requires the assessment of formal and informal institutions. The cause and effect aspects of the transformation processes in the implementation of land reforms in modern Ukraine have been evaluated, taking into account the European integration factor. The approaches to improve the environmental and economic mechanisms of public utility in ensuring sustainable development of agriculture have been proposed. The approach from the present study is based on the estimation of the variability of active natural buoyancy in the country with the position of innovative methodology on the basis of comprehensive economic assessment, as well as on the base of historical views of the period of the year of the natural resource-based business.

Key words: agricultural lands, agricultural sector, ecological marketing, European Union, institutional economics, land market in Ukraine, land reform

1. Introduction

At the present stage of human development there is an urgent problem of rational and environmentally safe use of land resources due to the ever-increasing dynamics of population growth in the world, climate change and the loss of world agricultural land reserves due to negative human impact. This problem is especially relevant to Ukraine, because the country is at the crossroads between two reforms: land reform, which consists in implementation the of agricultural land market and lifting the moratorium on their sale; and greening of agriculture, which is a modern global trend and is one of the requirements of the European Union in matters of European integration for Ukraine.

At the initial stage, a number of scientists, in particular Dobryak and Babmindra (2006) emphasized on the exclusively environmentally oriented model of land reform, and identified the main goal of land reform, which is to "ensure the most rational and highly productive land use, comprehensive protection and enhanced reproduction of soil fertility" (Dobryak, 2002). But, the problem is that the land reform in Ukraine has been starting from Ukraine's independence, and was narrowed to agrarian because

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of many scientists point of view, that land reform needs most preferably to formally conceptualize prerequisites for land reform in Ukraine as the main agrarian reform (Martin, 2011; Sabluk, 1997; Sabluk, 2009). As a consequence, the reform was carried out outside the temporal and spatial parameters of the constitutional norms on land and its natural resources as the main national wealth of the Ukrainian people, and separated from administrative, financial, tax, customs, environmental, resource-saving and other reforms. As a result, most of the agricultural land illegally and semi-legally became a property of large agricultural holdings, which, in addition to the destructive impact on land resources, also appropriated land plots, are a property of the citizens of Ukraine according to the Constitution of Ukraine (Constitution of Ukraine, 1996). As a result, Ukraine has reached a point where solving the problems of land relations and greening of agriculture requires a simultaneous and immediate solution.

In our opinion, one of the tools that can solve this problem is environmental marketing, which in essence is able to take into account the interests of society and the state, the interests of business (both small and large), and the aspect of rational use of nature. This tool is used in both formal and informal institutions and therefore this aspect needs to be studied. Therefore, the issue raised in this article is relevant in theory and especially in view of the use of its results in practice.

2. Material and methods

The theoretical and methodological basis of this work is the general theoretical methods of scientific knowledge, fundamental provisions of the theory of land relations, principles of economics of nature management and environmental marketing, scientific works of domestic and foreign scientists on land use in the agrosphere. The following research methods were used to accomplish these tasks: dialectical, abstract-logical, scientific generalization - in researching the theoretical, methodological bases of land use and factors affecting the agricultural land market; analysis and synthesis - to determine the influence of institutional factors on the marketing environment of farms and the conditions of functioning of the land market; monographic - when studying the features of land use in modern conditions of Ukraine and in the context of European integration; settlement-analytical and economic-statistical - for carrying out quantitative and qualitative analyzes of the state of production of environmentally oriented agro-industrial products in the context of sustainable development, in particular agricultural lands; systematic approach - in determining approaches to assessing the value of Ukraine's active natural capital.

3. Results and discussion

At the present stage of development of Ukrainian agriculture, the land issue is one of the most pressing issues. Of all the land resources available in Ukraine, agricultural land accounts for more than 70% of the total land fund of the state and the ownership of the national capital is estimated at $ 2 trillion. The Constitution of Ukraine declares the ownership of land and its natural resources as natural objects of property rights of the Ukrainian people - the main national capital, which is under special protection of the state.

This situation causes a number of environmental problems, because due to the neglect of constitutional norms, part of the resources of Ukrainian agriculture were irrevocably lost due to such reasons as:

- failure to comply with rules of crop rotation and optimal cultivation;
- monocultural nature of food production;
- excessive amounts of nitrogen and nitrate fertilizers in the soil (which is the first reason for the loss of agricultural land in Ukraine due to the inability to control this aspect);
- high level of plowed land (according to the Ministry of Agrarian Policy and Food, plowed agricultural land of Ukraine has more than 80% in 2019);
- prevalence intensive method of farming.

Obviously, these factors prevent the development of agriculture in line with current world trends, namely, the greening of production and the overall reduction of destructive effects on the environment. As this is a matter not only of improving the environmental status of Ukraine, but also of ensuring further environmental and food security. This is where, in our opinion, environmental marketing plays an important role. As noted above, non-compliance with the constitutional norms of land ownership, as well as the lack of transparent land legislation made it possible for large agro-holdings to illegally appropriate part of the land that was legally owned by smallholdings and privately owned. As a result, smallholder farms became uncompetitive in the markets, and thus market share and the target audience were almost completely monopolized by large producers.

However, it should be noted that in modern society, there is a general concern for their own health and in accordance with the quality of their food. As large producers do not consider it advisable to shift their strategic production from traditional agriculture to environmentally friendly, small farms have partly taken over some of the market share with using of ecological marketing tools. And in order to better meet the environmental needs of society and the demand for environmentally friendly products, the key factor is to address the effectiveness of functioning in the future market of agricultural land exclusively in strict accordance with the norms of the Constitution of Ukraine and, most importantly, ensuring equal access of all citizens of Ukraine to land resources not only to large landowners, but also to small farms with obligatory observance of ecological norms of production and also recommendations of the European Union. That is why in the modern land legislation of
Ukraine not only economic aspects but also ecological ones should be taken into account, because greening of agriculture - is the only possible scenario of its development in the future.

With regard to the direct link between ecological marketing and rational land use, it should be noted, that these areas are directly related to each other. In essence, ecological marketing is an independent concept in marketing with its own tools and mechanisms, not part of the social and ethical concept of marketing. Regarding the definition of environmental marketing, we agree with Lazarenko opinion (Lazarenko, 2016), which states that "ecological marketing is a type of management activity within the system of relationships between producers, the state and consumers, aimed at generating demand for environmentally friendly products without disturbing the ecological balance of the environment". In general, ecological marketing can be conceptualized as a model that takes into account the interests of the state, business and society. And a similar analogy can be found in practice and theory of land use, because the basis of the functioning of comfortable life as a citizen of a particular state are natural factors: land (all categories of land) and its natural resources (exhaustive and inexhaustible); living microorganisms; solar; other energy sources that in the process of sustainable use of nature, constantly (annually) create added value; undrawn investment of natural capital - the main national capital. These factors as natural objects of the property right of the people (in this case Ukrainian), which are under special protection of the state, are declared in the Constitution of Ukraine (Art. 13-14) (Constitution of Ukraine, 1996).

As evidence of the effectiveness of the use of environmental marketing, it should be noted that despite on the actual monopolization of both land resources and markets by large producers, the production of environmentally friendly food products in Ukraine is developing, in particular in the direction of organic production (Fig. 1) (Federation of Organic Movement of Ukraine, 2017). According to the above data, the dynamics in the development of organic agriculture are obvious. And, in accordance with this trend, we can observe a positive outlook for market development (Fig. 2) (Federation of Organic Movement of Ukraine, 2017).
Such indicators are related equally to the country's food and environmental security and to its European integration aspirations. It is well-known that, since 2014, Ukraine has announced a European integration geopolitical course. For many sectors of the country's economy, this mean a strategic reorientation of European Union production and adoption of "rules of the game" in matters relating to the economy. Agriculture was no exception. The issue of quality nutrition is becoming more relevant not only in Ukraine but also in the world. One way to meet the European Union's need for high-quality, safe products on the one hand, and to be competitive in those markets with existing manufacturers on the other, is to produce eco-friendly production using eco-marketing approaches.

Based on this, it is obvious that land, its subsoil and other resources are key factors in securing the production of environmentally friendly goods and services. In particular, organic farming differs from the traditional one since no chemicals are used in the cultivation of one or another crop. It is allowed to use specific fertilizers of exclusively organic origin, but the main source of nutrients is exclusively soil.

However, unfortunately for now we have to say that the actual land and nature management policy is not aimed at strengthening the peasantry and accordingly to the development of ecological friendly agriculture. Inaction or actions that reduce the opportunities for the useful work of the rural population and reduce the number of workers in local small farms, family farms or in the private sector are harmful and have already caused a sharp decrease especially of the rural population but also of the population in general. In the future, given the illegal tenure of the large agro-holdings discussed above, all these can lead to depopulation and the disappearance of most Ukrainian villages. That is why in the issue of land reform in Ukraine the most important is the environmental aspect, considering also legal and economic aspects (Kovaliv, 2016a).

This is one of the reasons for the low competitiveness of Ukrainian farms in the environmentally safe direction. One of the most important conditions for solving this problem is the transformation of land resources of each individual farm, including environmental from liability into an asset. This mean that the land must generate income to its owner either by leasing it and receiving from it a fair payment (rent) or by its direct sale (which became possible after the abolition of the moratorium on the sale of agricultural land), while taking into account the interests of the state as a whole institution. This also applies to economic interests for formal local institutions, as they will be able to form a transparent local budget (North, 2000).

However, as we noted, because of the fact that land reform runs counter to tax reform, the increase in rent payments at all levels of the budget occurred in the absence of interconnection of rates for other types of taxation.

Under these conditions the market relations in the transition period seem to be distorted and unbalanced. It is primarily about structures, which is the reason that the rent component of income "dissolves" in financial flows in a certain way. The lack of state-regulatory mechanisms and, as a consequence, the imbalance of the whole system of economic relations in the country and in certain clan structures are believed to have led to the hypertrophied development of non-productive, i.e. mediating, supervisory or financial structures as semi-legal, as well as to the emergence of artificial control and the emergence of artificial control by financial flows. This monopoly is used, including shade structures, to maximize their revenue by imposing a certain influence in the field of pricing policy for redistribution in their favor natural resource rents (Kovaliv, 2017).

Based on this, it should be noted that due to the lack of these state-regulatory mechanisms that have a negative impact on agriculture, fertile soils are used as a particular life-giving reproductive natural resource, which is quite peculiar and significant for Ukraine. Due to the lack of appropriate state regulatory mechanisms and appropriate institutions for their implementation, as well as the imbalance of the whole system of economic relations, the artificial monopoly of non-productive structures - intermediary or financial, which control the commodity and financial flows related to the most liquid agricultural products - continues to operate. Above one of the main problems are associated with monocultural nature of production. The most profitable and, therefore, the most exhausting are crops such as: sunflower, corn, soybeans, rapeseed (Furdychko et al., 2019).

Therefore, given the above, as well as the constitutional rules and the factor of the transition of land into private property, it is necessary to differentiate the interests of ownership of the property, which allows to obtain income, namely for (Kovaliv, 2016b):

- the ownership of land and its natural resources as an object of ownership of the entire Ukrainian people (natural properties and natural energy);
  - the ownership of the land plot;
  - the ownership of extra work;
  - the right to create a favorable economic and legal environment for the state (through the introduction of quotas, duties, privileges, etc.) to increase both internal and external markets share (monopoly law).

And that is why, the first condition for achieving ecologically oriented land use and economic balance in land relations is that the land acts as a basic means of production and the profit from them must be consistent with the weighted average amount of products of natural origin, obtained from a certain area due to solar and other energy, natural fertility of existing soil, air, water, microorganisms,
etc., except for the cost of human labor and the tools and means used to sow, care and remove such products from environment and turning it into a real material resources (Drebot et al., 2019).

These interests are fully in line with the principles of sustainable development and ecological marketing in terms of formal institutions, where these interests are balanced. Separately, in this connection it is worth to note that the relation between the interests of nature and man as its subject has been described and is confirmed at the present stage in the works of the classics of economic theory, in particular in matters of land use. Thus, Kene (1960) noted that the source of human wealth is not only and not so much value added, as the result of the activity of the sun, whose energy quanta through plants, soil and microorganisms are transformed into food, and therefore proposed to distribute the resulting product in this way for the benefit of society. According to his calculation, 2/5 of this product should be returned to the earth to maintain its fertility, 1/5 - for the needs of the peasants, 1/5 - for the processing industry and 1/5 - for the needs of the state - society. Other researchers have argued that the share of national capital (which we talked about above) is much higher under these conditions (Kovaliv, 2016a).

Therefore, the second condition for satisfying the interests of all subjects is the guaranteed constitutional right of private ownership of the land plot as a real estate object, which should guarantee its owner to receive the real value of the rent-matching profit (income) from the right of ownership of the land plot as an object of real estate (\( Rd \)). It is calculated by the following equation (Kovaliv, 2016a) (Eq. 1):

\[
R_d = \left( \frac{P\% \times B_p}{100\%} \right) \times S
\]

(1)

where: \( R_d \) - share of rental income from the ownership of a particular plot as a real estate object (UAH); \( B_p \) - value of one hectare of land of the real estate object (UAH); \( P\% \) - average market rate (%); \( S \) - property area, ha.

For clarity, we will calculate it at the rate of 1 hectare of arable land of average quality and productivity across Ukraine for the equation given above, at a market bank rate of 20 percent per annum - (25773 UAH / ha × 20%: 100% × 1 ha = 5155 UAH / ha). Despite on such a real value of UAH 5,155 / ha, the share of rent-reconciliation profit (income) from the ownership of the plot as a real estate object (\( R_d \)) from one average hectare as of only 908.8 UAH per hectare of share, which is a very low figure. This is due to the fact that in practice banks provide rates of only 3%.

In our opinion, the value (\( R_d \)) should be calculated from the gross profit from which the owner of the site pays tax on this property to the local budget. In this case, the owner-owner includes this land ownership tax in the single land tax. Based on this, using also the latest practices and international experience, it can be argued that (absolute) consistent profit (\( R_h \)) with per hectare within a particular area can be calculated by the following equation (Eq. 2):

\[
R_h = Y \times C \times K
\]

(2)

where: \( R_h \) - annual reproducible share of rental income from national ownership - the main national wealth (absolute) per hectare per site (UAH); \( Y \) - share of grain yield due to natural fertility (quintals / ha); \( C \) - selling price of one quintal of product (UAH); \( K \) - the influence factor (natural conditions, attractiveness and comfort of the economic activity of the business entity) and adaptation to EU standards, which will operate in the range of 0.5 to 1.2.

Speaking of the value of land from the standpoint of environmental marketing, as we noted above, as an example, we will give calculations based on the principles proposed by Kene (1960). As an example, we will consider one hectare of arable land of average quality and productivity in Ukraine, as the initial data for the end of 2015, applying the minimum indicator of the impact factor (K). The average cost of one ton of grain of winter wheat of the 3rd class (C) on the European markets makes 174,33 euros, or 4320 UAH (at the rate of 29.75 UAH for one euro). If you count it as natural (environmentally safe) without the use of chemicals under the conditions (in our case) to obtain only 30 kg / ha. Under real conditions, we came to the conclusion that it is logical to take the value of grain yield (Y) due to natural fertility as an annual share of national wealth not 10 quintals per hectare (1/3 of the above yield of 30 quintals), but only 6 quintals per hectare, which is 1/5 and also corresponds to 6.56 quintals (actually proven by the value, which is actually 4.1 times higher than the previously accepted constant value of 1.6 quintals).

Thus, under conditions of full protection and restoration of natural soil fertility, the absolute share of income (profit) for the main national wealth (\( R_h \)) within the defined area of one hectare must be at least 1557 UAH (\( R_h = 6 \times 519.1 \text{UAH/centner} \times 0.5 \times 1 \text{ha} \)).

It should be noted that the owner of an environmentally oriented enterprise in market relations can return the invested capital to the land as the main means of production, during its active economic activity, which lasts mostly for 33 years, which is identical with the real estate capitalization accepted in Ukraine (land plot, its borders).

In this case, the land is a commodity in terms of environmental marketing both from a formal point of view and in terms of additional capitalization. We are talking about the absolute value of land. In particular, according to Art. 150 (Constitution of Ukraine, 1996), the lands that fall under this concept include uneroded chernozems - the most fertile soils on earth. And it is generally known that in Ukraine 60% of its territory is chernozem. And this factor reinforces the importance of land resources from the standpoint of environmental marketing. Because in this case, land is not just a natural resource, but a particularly valuable commodity.
Most eco-friendly businesses are predominantly engaged in B2C marketing when the manufactured goods are delivered directly to the average consumer. However, land owned by a particular farm can become a B2B model of operation. In this case, the consumer of the benefits is the state and its society, which receives high-quality products without harmful impurities, while the enterprise provides rational and harmless land use, and the landowner receives some income. From environmental marketing point of view, the economy of the country is in a stable state, this absolute value of land within a specific land plot ($B_{hd}$) ideally should correspond to the market value of the land, which should also be equal to the product of the sum of the shares of the reconciling profits from the property of the Ukrainian people ($R_{H}$) and from the ownership of the plot as real estate ($R_d$) and its capitalization period (in our example, this capitalization period is 33 years according to the national law), (Eq. 3):

$$B_{hd} = (R_H + R_d) \times T_K$$  

(3)

where: $B_{hd}$ - absolute value of land within the land plot (UAH); $R_H$ - share of rental income from the ownership of the Ukrainian people - the main national wealth (absolute) within a particular plot (UAH); $R_d$ - share of rental income from ownership of a particular plot as real estate (differential) (UAH); $T_K$ - the period of capitalization of rental income (years), which is set at 33 years.

Thus, based on these models, the value of land from the standpoint of marketing can be calculated by this equation (Eq. 3). As an example, under these prerequisites and requirements, the absolute value of land within a specific land plot and a specific business entity, the size of one hectare of arable land of average quality and productivity in our case should be 81371 UAH GNI = (1557 UAH + 908.8 UAH) $\times$ 33, or 2732 euros (at the rate of 29.78 hryvnias for 1 euro). Within this absolute value of land, the share of value (expressed in hryvnias) of property of the Ukrainian people as the main national wealth ($B_{hd}$) is calculated by the formula: $B_{hd} = R_H \times T_k$ and is 51381 UAH, and the share of value (expressed in hryvnias) of land ownership as real estate ($B_d$) is calculated by the formula: $B_d = R_d \times T_k$ and it is 29990 UAH.

That is why, while ensuring the interests of nature, business, state and society and achieving synergy in these models, it should also be noted in this connection that the amount of annual rent (in UAH) should be greater or equal to the amount of rentable income from the ownership of the same land ($R_d$). Also the value of the reconciling income (profit) from the main national wealth as a natural object ($R_{H}$) may not be less than the reconciling income for the actual (market) value of the ownership of the land as a real estate object ($R_d$) and also cannot be less than the income from the estimated value for the property on the land plot as real estate ($R_{gp}$), calculated at the rate of the principal issue institution of the country from the standard value of a unit of land, which, in turn, may also not be lower than the average market value over the previous five years of a similar land plot as an object of real estate ($B_c$).

$$R_H > R_d \geq R_{gp} \geq B_c$$  

(4)

where: $R_H$ - income from basic national wealth (absolute) within a unit of a specific plot (single land tax) (UAH); $R_d$ - income from market value within a unit of a particular plot as real estate (UAH); $R_{gp}$ - income from the estimated value of a unit of a particular plot (discounted rate from the regulatory cost) (UAH); $B_c$ - income per unit of property per unit of property (average over the previous five years) (UAH).

Only the absolute value of land should appear in the proposed market circulation of the land ($B_{hd}$), expressed in a specific plot of land.

Thus, the practical implementation of the constitutional norms regarding the institutionalization of the property rights of the Ukrainian people - land and its natural resources - of the main national wealth will confirm the scientific justification regarding the impossibility of depriving it of its ownership of natural objects, including by sale. Therefore, natural objects that are within specific land plots - real estate objects also cannot be subject to any sale. However, in the current market relations, especially for the full period of completion of the land reform, up to the moment of accession to the EU, it is advisable to conduct the institution of buying rights only to use such objects on a competitive basis. For this purpose, quantitative and qualitative indicators of natural objects should also be embodied in cost indicators, and requirements for users and conditions for the implementation of such environmental use in the subject regulations. Only compliant citizens who agree to comply with the regulations may be candidates for the purchase or ownership of agricultural parcels of national value of national importance.

It is also in this connection to draw attention to the fact that Ukraine has acquired a sizeable negative impact also hypertrophied development of non-production - intermediary, supervisory, financial and other structures as semi and artificial monopolies and control of natural resources, trade and financial flows, including in foreign markets through their offshore structures, especially in areas related to the use of fertile land and minerals. This problem can only be solved at the legislative level by updating it (Kovaliv, 2016b).

Therefore, Ukraine should have a real opportunity and economically-motivated interest in the universal creation and development of a simplified scheme of manufacturing and servicing entrepreneurship in the same B2B model, including peasant (farm) farms based on their own land of optimal size and able-bodied work family members for the production of products and products for sale, their own consumption, and most importantly - a
comfortable life, meeting the main principles of ecological marketing.

Therefore, we can conclude that it is extremely important that all such production and service structures would be interested in investing personal and additional intellectual, material and physical labor and funds, to carry out land reclamation, including water regulation and development of productive land (while fully preserving the natural fertility of the soil and the surrounding environment) and would reasonably calculate and actually receive the corresponding share of rent-and-mortgage income from additionally invested labor and funds. For this, the mechanisms of unhindered receipt are logically laid down, which is taken into account separately by the owner himself and is not subject to taxation.

All the above conditions can effectively ensure the principles of eco-marketing only if the simultaneous creation of incentive mechanisms through the monopolization and expansion of internal and external markets of Ukrainian of natural organic (environmentally safe) and competitive products are produced by national natural resources. The result will be monopoly rental income (profit) ($R_A$), at the same time stimulating all previous rent-matching revenues (profits). For this purpose, three percent of the purchase price in the foreign and domestic markets of such products and products is (automatically) deducted daily from each purchase (in the currency of the end consumer) to the special fund for development and promotion of the National Land Office. At the same time, any unnecessary mediation between the owner and the end user should be eliminated, as well as the mandatory introduction of incentive and support mechanisms for only real participants as the main actors. For example, subsidies per hectare are higher in the founding countries of the European Union (Netherlands - 450 euro / ha, Germany - 320 euro / ha), and lower for new EU members. Poland, which joined the EU in 2004, receives 210 euros / ha, and Romania (EU member since 2007) - 200 euros / ha.

4. Conclusions

Summarizing the above, it should be concluded that for the development of Ukrainian agriculture in the context of European integration processes, Ukrainian enterprises must follow the trends of agriculture in the European Union, namely from the point of view of greening production and actively implement the principles of ecological marketing.

Also, the introduction of the proposed algorithm of land interests as the main prerequisite for the completion of land reform in Ukraine will also promote the welfare of Ukrainian society, stimulate development and act on the principle and in the likeness of the operation of the undisputed law of blood circulation in large and small circles - not in harmony with vital systems in our living and healthy body.

In this case, the Ukrainian hryvnia should be backed up by the value assets of the land and its natural resources. This also requires the simultaneous reformation of existing state institutes of land and its natural resources, forming on their basis a new non-governmental National Land Office of Ukraine.

References


Kene F., (1960), Selected Economic Works, Soekgiz, Moscow, Russia.

Kovaliv O., (2016a), Completion of Land Reform in Ukraine: A New Paradigm, DIA, Kiev, Ukraine.

Kovaliv O., (2016b), Theoretical and methodological foundations of land reform completion as a new paradigm in Ukraine, European Cooperation, 3, 35-47.


