

MANAGING CHANGE IN LAND RESOURCE USE: THE EUROPEAN EXPERIENCE

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Abstract. *The subject of the study* is the management of shifts in the use of land resources. *Methodology.* The research uses general scientific methods: theoretical generalization, methods of positive and normative analysis, and methods of statistical analysis. The goal is to study the European experience of managing the changes in the use of land resources. *Research conclusion.* The comparative characteristics of the state of land use in European countries and Ukraine were carried out. The place of Ukraine in the European land use is shown. Today in Ukraine 32.7 million hectares of arable land is cultivated, which is about one third of the European arable land. According to the statistics, one Ukrainian has twice as much agricultural land as one European. The total area of Ukraine on the scale of Europe occupies about 6% of its territory, the area of agricultural land is 19% of agricultural land in Europe. The level of arable land in Ukraine is 54%, while in Europe this indicator reaches barely 35%. The main stages of changes in the use of land resources through the prism of the normative and legal component of land reform are highlighted. Retrospective data on the formation of land relations, as well as the formation of the land market in Ukraine are revealed. The main structure of all Ukrainian lands was analyzed. The analysis of the ownership structure of agricultural land shows that the majority of land is privately owned – 31.0 million hectares or 75%, 8.7 million hectares or 21% are state owned, and 1.7 million hectares or 4% are communally owned. The dynamics of price changes for agricultural land in European countries are presented. It was noted that in comparison with 1990, before the establishment of an independent state, there have been drastic changes in the distribution of land according to forms of ownership, which is a direct result of the land reform. It was emphasized that despite the lifting of the moratorium on the sale of agricultural land, the land reform is still ongoing, and in connection with it, significant changes in the use of land resources are taking place. One of the most difficult tasks is to complete the reform of land relations and establish a unified land use system that can combine the freedom of land ownership, its effective use and social justice in the distribution of land. The world experience of managing changes in the use of land resources has shown that the liberalization of the agricultural land market has different scenarios for different countries. The Ukrainian economy has been in need of market opening for a long time.

Key words: land resources for agriculture, agricultural lands, displacement management, agricultural enterprises.

JEL Classification: E20, H56, O10

1. Introduction

The development of modern agriculture is characterized not only by constant changes in the organization and specialization of agricultural enterprises, but also by significant development dynamics, constant modernization of the material and technical base, business and technological processes, the need to strengthen environmental and social priorities for further functioning.

Therefore, considering the management of agricultural enterprises, it is necessary to solve many multivector tasks and functions, to use the resource potential intensively.

The activities of agricultural enterprises are often characterized by intensive exploitation and inefficient use of natural resources; obsolescence, excessive energy and material consumption, multiple waste production technologies, insufficient level of secondary

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waste processing, inefficiency of the organizational and economic mechanism of nature use and nature protection activities. This causes a high level of anthropogenic burden on ecosystems, a decrease in biodiversity and environmental pollution; lack of positive social and ecological structural changes in the agrarian economy and real steps in its transfer to an innovative and investment model of effective functioning.

The main stages of the development of land relations in Ukraine, the evaluation of the land reform and the analysis of the use of agricultural land have been considered in the studies of many scientists. The Ukrainian researchers have made sufficient progress in the consideration of this issue, but the disputes about the correctness of the chosen reform course, about the formation of a fair price for land after the lifting of the agricultural land market, and about the main aspects of management of changes in the use of land resources will not stop. Therefore, there is a need for further study of these issues.

The objective of this study is to examine the European experience in managing changes in the use of land resources.

2. Preconditions for structural changes in the use of land resources

The rational use of land resources contributes to the economic and social development of both urban and rural areas and of agricultural enterprises. A number of countries are trying to achieve these goals through land reform. The term "land reform" has different meanings in different countries, including the restoration of land rights to former owners, known as land restitution, and the redistribution of land rights, for example, through the transfer of public land to the landless or the seizure of land from large landowners for redistribution. Land reform can also include land consolidation, in which all landowners in an area give up their land and receive new plots of comparable value, but under a scheme that promotes more efficient and productive land use (Kovaliv, 2016; Korobskaya, 2020; Ivanyshyn, Volkova, Horlova, 2019; Pankiv, 2012).

Reforms may also include changes in land relations in terms of the form of ownership of rights. For example, complex rights based on traditions and customs may be abolished in order to introduce simpler and more modern land transfer mechanisms. What happens to land can be planned in advance (as part of the spatial planning process), but it can also be the result of land and real estate tax reforms that change the value of land and thus its use (Koshkald, Demchuk, Suska, Anopriienko, Riasnianska, 2022).

Land reform programs usually affect selected areas, such as agricultural land. In rural areas, programs may be developed to promote changes in agricultural technology, direction of crop production, methods of land management, financing of production, or marketing of products.

Land was, is and will be the main national wealth. It is the basis of human culture and social organization. Land is a natural resource without which no human activity is possible; therefore, agrarian reform primarily entails changes in the use of land resources, especially in land tenure.

Land reform is a system of interdependent measures of transformation of land ownership and land use carried out by the state, its goal is to create a system of land relations in the state based on guarantees of equality of land ownership rights of individuals, legal entities, as well as communities and the state. The implementation of this goal is aimed, *inter alia*, at solving such tasks as fundamental changes in the forms of land ownership, the provision of land plots to citizens, the introduction of land use fees, and the creation of factors leading to the formation of the land market (Tretyak, Tretyak, Kuryltsiv, Pryadka, Tretyak, 2021).

Ukraine has huge land resources, but unfortunately they are used irrationally. The Resolution of the Verkhovna Rada of Ukraine "On Land Reform" dated December 18, 1990, established the goals, tasks and main stages of land reform implementation. The most important aspect of land reform was the transition from unified state ownership of land to various forms of ownership, including private ownership. In the complex of measures for further transformation of land relations, the institution of private ownership of landed estates plays the leading role, as private property rights were completely limited within certain regulations.

The law lifting the moratorium on the sale of agricultural land plots plays a significant role in the redistribution of land and the legal consolidation of the land rights of the owners.

Global changes in land tenure patterns took place. Millions of acres of productive land were transferred free of charge to rural and urban residents. They received plots of land for gardens, vegetable gardens, housing, the expansion of personal subsistence farms, and the organization of peasant farms. As a result of the land reform, the following significant changes were made:

- 1) the monopoly of state ownership of land was abolished;
- 2) collective farms and state farms were reorganized, and land was privatized;
- 3) a significant layer of peasant households was formed;
- 4) a fee for land use was introduced.

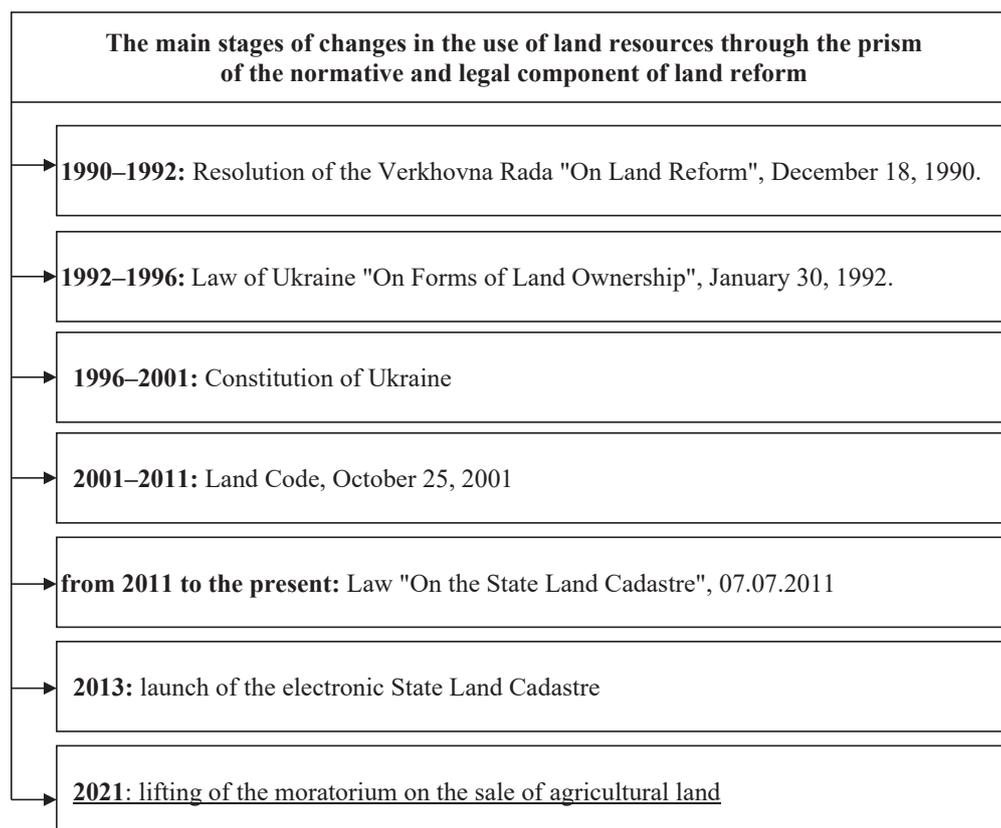


Figure 1. The main stages of changes in the use of land resources through the prism of the regulatory and legal component of land reform

The main stages of changes in the use of land resources through the prism of the regulatory and legal component of land reform are shown in Figure 1. The analysis of the retrospective data shows that in comparison with 1990, before the proclamation of the independent state, there have been drastic changes in the distribution of land according to forms of ownership, which is a direct result of the land reform. For further analysis the data from 2014 will be used, i.e., before the annexation of Crimea and the allocation of the ATO zone: the area of state-owned land was almost 48%, privately-owned land was 52%, collective-owned land, which still existed in Ukraine at that time, but in an insignificant amount, was only 0.1%.

The collective form of land ownership arose as a result of the transitional stage of the reform: to ensure the transfer of land from state ownership (collective farms and state farms) to private ownership. In 1996, about 37% of land was collectively owned, while 60% was state owned and only about 3% was privately owned (Ivanyshyn, Volkova, Horlova, 2019).

Furthermore, the state and communal forms of land ownership were demarcated, resulting in a communal form of land ownership.

3. Analysis of structural changes in the use of land resources and European experience

Analyzing the ownership structure of agricultural land, it can be seen that most of the land is privately owned, 31.0 million hectares or 75%, 8.7 million hectares or 21% are state owned, and 1.7 million hectares or 4% are communally owned (Figure 2).

The main changes in the structure of the land fund since 1996 in terms of forms of ownership are that agricultural land was actively transferred to collective ownership as a result of such stages of land reform as denationalization, allotment (artificially issued state acts for virtual allotment to peasants) and privatization of land plots used by citizens until 2014.

For comparison, data on the share of privately owned agricultural land in EU countries are presented (Figure 3).

According to the figures, the private ownership of individuals and legal entities in different countries ranges from a minimum of 49% (Germany), 53% (Austria) and 56% (Estonia) to 99% (Belgium, Latvia) and 100% (Switzerland, Italy).

According to the estimates of specialists in the field of land relations, today in Ukraine there are 32.7 million hectares of arable land, which is about

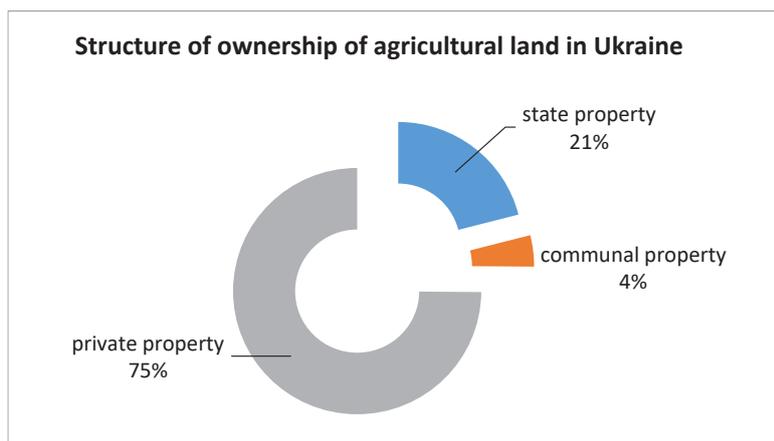


Figure 2. Structure of agricultural land ownership
(Land Registry of Ukraine 2020 – a database of the country's land fund, 2021)

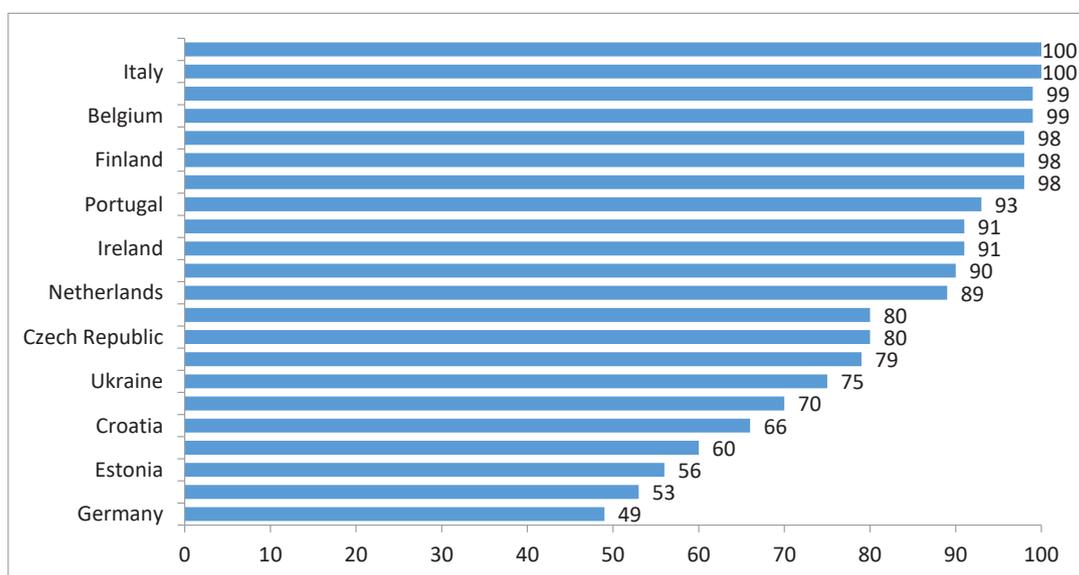


Figure 3. Share of agricultural land in private ownership in EU countries (2020)
(Land Directory of Ukraine 2020 – a database of the country's land fund, 2021)

one third of the arable land of Europe. According to the statistics, one Ukrainian has twice as much agricultural land as one European. The total area of Ukraine on the scale of Europe occupies about 6% of its territory, the area of agricultural land is 19% of agricultural land in Europe. The level of arable land in Ukraine is 54%, while in Europe this indicator reaches barely 35% (Table 1).

In Ukraine, until the lifting of the moratorium in 2021, when there was no market for agricultural land, lease relations developed actively. Thus, in 2020, in the structure of use, 56% of agricultural land was leased from the owners, and 29% was cultivated by the owners themselves, 8% was leased from the state, and about 7% was not cultivated at all for various reasons. In addition, almost 22% (6.9 million people) of all landowners and land users are sharecroppers.

According to the State Geocadastre, in 2020 there will be 10.4 million hectares of agricultural land in the structure of state property. Of these, 0.7 million hectares (7%) are located in the occupied territories. On the whole territory of Ukraine 1.7 million hectares of agricultural land or (16%) were transferred to UTC (Land Directory of Ukraine 2020 – a database of the country's land fund, 2021).

After the lifting of the moratorium, the Ukrainian agricultural land market is on the verge of major changes.

There are different approaches to the circulation of land in different countries of the world. Yes, most EU countries have open land markets: Austria, Belgium, the Netherlands, Germany, France, Switzerland have liberalized and open land markets where there are no restrictions on foreign capital.

Table 1

Comparison of the state of land use in European countries and in Ukraine

Indicator	Ukraine	European countries	EU countries
Land area, million ha	60,4	1015,6	437,4
Land used for rural purposes, million ha	42,7	474,8	177,7
Acreage, million ha	32,5	277,8	115,7
Chernozem area, million ha	28	84	18
Organic land for rural purposes, million ha	0,3	11,6	5,3
Irrigated land, million ha	0,5	20,8	11,1
Share of leased agricultural land, %	97	62	53
Rural land area per capita, ha	0,9	0,6	0,44
Grain export, million tons	34,8	130	38,5
Investment price, thousands of dollars per 1 hectare	1	4	5,5
The price of 1 hectare of rural land, thousands of dollars		3,7	7,2

Source: created by the author on (Land Directory of Ukraine 2020 – a database of the country's land fund, 2021)

However, even in these countries there is a significant influence of public administration, e.g., in France, Belgium and Austria the vast majority of sales contracts are reviewed and approved by local public administration bodies (such as SAFER in France). Denmark, Finland and Sweden are characterized by significant taxes, especially environmental taxes, and strong government support for agricultural enterprises.

The degree of state influence on the management of changes in the use of land resources today depends on the socio-political system of the country, i.e., on the degree of centralization and decentralization of the management of land resources. Taking into account the European experience, the authority to regulate land use is exercised by bodies of territorial communities and specialized institutions, for example, such as the Agricultural Real Estate Agency in Poland, the Department of Land Consolidation in Denmark, the State Land Service in Latvia, the National Land Service in Lithuania, and the Slovak Land Fund.

Organizational and legal forms of land use, as well as forms of ownership of land resources, vary. The analysis of the management of land resources in a number of countries has shown that in almost all of them there are various restrictions: in particular, restrictions on the maximum area of agricultural land per individual in some countries are as follows:

- Poland – 300 hectares, but taking into account inherited lands up to 500 hectares;
- Hungary – 300 hectares (for individuals and legal entities);
- Romania – 200 hectares (for individuals and legal entities);
- Denmark – 30 hectares (for those with professional education and farming experience).

In Ukraine, the law establishes the maximum allowable area of agricultural land owned by one person up to 100 hectares.

In Germany, the minimum property area is 1 hectare, in Poland it is 1 hectare, and in Japan it is 0.5 hectare.

In Ukraine, the minimum area of land ownership is not specified (Ryasnianska, 2015).

In Ukrainian reality, the situation has developed in such a way that for decades there has been no open free market for agricultural land, and narratives about the negative consequences of the free circulation of agricultural land have been imposed on society. Thus, according to polls, more than 70% of citizens were against the opening of the market. One of the greatest fears was that land would be bought for nothing. However, there is a rational basis for these fears, as world experience shows that the market behaves differently. Experts have analyzed the dynamics of changes in the price of agricultural land in European countries in the years following the beginning of market liberalization. Different scenarios can be observed: a tendency to a gradual increase of the price in each subsequent year (Czech Republic, Lithuania, Hungary), a sharp increase of the price immediately after the opening of the market with a gradual decrease of the price (Estonia, Latvia, etc.) (Table 2).

In 2020, the price policy in European countries was formed as follows: the five leading countries that had the highest price for agricultural land are the Netherlands, Luxembourg, Italy, Great Britain and Ireland, the average price of which was \$68.2 thousand/ha, \$35.6 thousand/ha, \$33.5 thousand/ha, \$23.5 thousand/ha, \$19.9 thousand/ha, respectively. However, there are a number of countries where the price did not exceed \$3 thousand/ha, namely Croatia, Latvia, Estonia and Romania (\$3.0 thousand/ha; \$2.9 thousand/ha; \$2.9 thousand/ha; \$2.1 thousand/ha respectively) (Table 3).

Therefore, the action program of the government and partner countries should create levers to support the post-war economic development of Ukraine. Accordingly, the study of the world economic growth during the war in Ukraine, the

Table 2

Dynamics of price changes for 1 hectare of agricultural land after market opening

Countries	Dynamics of price per 1 ha of agricultural land compared to the previous year, %											
	years since the beginning of liberalization											
	1	2	3	4	5	6	7	8	9	10	11	12
Czech Republic	3	4	0	15	27	8	10	6	10	5	13	16
Lithuania	4	32	37	13	29	-10	17	41	0	17	15	2
Estonia	107	53	26	-6	5	0	-3	23	26	26	14	
Latvia	90	118	73	-6	-45	-48	48	20	82	26	16	
Poland	12	40	16	34	14	11	6	12	27	3		
Hungary	2	5	4	3	12	8	1	5	13	12		
Romania	-3	45	7	15	9	15	37	6	6			
Bulgaria	5	33	-5	-7	47	35	4	31	19			
Slovakia	4	4	4	10	8	4						

Source: created by the author on (Land Directory of Ukraine 2020 – a database of the country's land fund, 2021)

Table 3

Prices for agricultural land in European countries

Countries	max price, thousand \$/ha	average price, thousand \$/ha	min price, thousand \$/ha
Netherlands	116,1	68,2	54,2
Luxembourg	35,6	35,6	35,6
Italy	57,0	33,5	17,9
Great Britain	31,6	23,5	18,3
Ireland	24	19,9	19,9
Denmark	19,9	17,3	14,0
Slovenia	32,8	16,9	13,9
Spain	131,3	12,8	6,6
Greece	55,5	12,6	6,0
Poland	13,3	9,7	5,7
Finland	10,1	8,7	5,7
Sweden	18,8	8,7	1,6
Czech Republic	6,5	6,5	6,4
France	11,9	6,0	2,6
Bulgaria	7,2	4,6	1,6
Hungary	4,9	4,4	3,0
Lithuania	3,7	3,6	2,5
Croatia	4,9	3,0	2,9
Latvia	2,9	2,9	2,9
Estonia	2,9	2,9	2,9
Romania	2,3	2,1	1,9

Source: created by the author on (Land Directory of Ukraine 2020 – a database of the country's land fund, 2021)

analysis of the current state of the war economy and the proposal of measures for the post-war economic development of Ukraine is quite relevant and timely (Irtysheva, Kramarenko, Sirenko, 2022).

At the stage of changing the administrative structure of territories, redistribution of fiscal and other powers, the question of assessing the efficiency of the newly created bodies of public administration remains controversial. The problem is also complicated by the need for effective implementation of the goals and strategies of sustainable development in the system of public administration and strategic planning at all levels (Irtysheva, Pavlenko, Boiko, 2022).

4. Conclusions

Thus, land has been, is, and will be the main national wealth. It is the basis of human culture and social organization. Land is a natural resource without which no human activity is possible; therefore, agrarian reform primarily involves changes in the use of land resources, particularly in land tenure. However, the land reform that began in 1991 has not been completed. One of the most difficult tasks is still to complete the reform of land relations and create a unified land use system that could combine freedom of land ownership, effective use of land and social justice in the distribution of land. The world experience of managing changes

in the use of land resources has shown that the liberalization of the agricultural land market has different scenarios for different countries. The Ukrainian economy has been in need of market

opening for a long time. However, there are many tasks in this direction that require further solution, at least this is the issue of pricing, i.e., determining the fair value of agricultural land.

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