

## DIVERSITY OF LAND USE RESTRICTIONS IMPACT ON SOCIAL LIFE

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**Abstract.** The purpose of the study is to investigate of diversity of land use restrictions and their impact on social life. The analysis and synthesis, comparison and system methods were used during this study. The following tasks are aimed to achieve the goal: to perform the analysis of land use restrictions diversity; to aggregate and structure the land use restrictions; categorize the land use restrictions; to research the impact of land use restrictions on social life. The classification of land use restrictions is proposed de-pends on different classification features. The results of the study illustrate the need for further determination of the assessment of the impact of restrictions on social life.

**Keywords:** land use, restrictions, limitations, classification, social impact.

### Introduction

There is a need to transform the approaches and mechanisms available in Ukraine to regulate land use within the current conditions of integration processes activated at the end of the XX century.

In Ukraine, the experience of land use management under different forms of ownership began to be acquired only in the beginning of the XXI century. Today the decision-making to ensure a balanced, sustainable and integrated development of territories is a complex problem that involves performing many interdisciplinary tasks and participation of a large number of entities (authorities, landowners, users, businesses).

Recently, the land use limitations mechanism has become of great importance as a regulator of providing favourable living conditions for the population and development of territories. One of the common application areas of this mechanism is a restriction of certain activity types that can lead to adverse effects in territories or particular land plots. The methods and mechanisms of land use limitations existing in Ukraine are not always open and understandable.

Land use limitation is a set of actions used to establish the optimal mode of land and land plot use. The necessity to set land use limitations is due to the need to preserve natural resources (agricultural, water, forest, mineral) and the ecological stability of the territories; protect historical and cultural heritage; ensure environmental protection (air, water, soil); ensure safety of life of the population; improve conditions of social life of the

population etc. (Barker, 2006; Burdge, 1990; Coad et al., 2008; Blockhus et al., 2004; Sutherland et al., 2004).

The Declaration of the UN Conference on Environment and Development (1992) determined that "...to achieve sustainable development, environmental protection must be an integral part of the development process and cannot be considered separately from it". In fact, limiting the use of land is the state's interference in property rights. However, it is justified from the point of view of ensuring the guarantee of free access to natural resources, social goods and aimed at ensuring the protection of as general public interests and as rights of all interested persons.

The aim of the article is to study the diversity of land use restrictions and their impact on social life. To achieve the goal, an analysis of the variety of land use restrictions was carried out, the grounds for establishing land use restrictions were determined, their aggregation and structuring was performed according to various characteristics; the impact of land use restrictions on social life is investigated. In the paper established by law types of land use restrictions in Ukraine are examined. The research was carried out taking into account legal, spatial, social, economic and ecological aspects. The analysis and synthesis, comparison and system methods also were applied during this study.

### 1. Methodology of research and materials

Land resources, as a socio-economic category, should be considered in tree aspects:

- as a vulnerable natural resource that required appropriate measures to protect it;

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- as the basis of the sustainable social and economic development of the society;
- as goods and object of commercial activity.

The land legislation of Ukraine stipulates those limitations may be established on the use of the land plot or its part. Land use limitations can foresee of prohibition of certain types of activities on territories (including a ban on changing the established of the land use plot), access to territories etc.

According to the legislation of Ukraine, information on land use restrictions is subject to state registration in the State Land Cadastre and publication as open data. The following information on land use restrictions is included in the State Land Cadastre: kind; description of boundaries; square; the content of the restriction; description of the mode-forming object (if mode-forming object exists); the documents on the basis of which land use restrictions were established. It should be noting that this corresponds to the goal 3 of the, Cadastre Strategy 2034 "...a cadastral system linked with broader legal and social interests on land. A cadastral system linked to knowledge about registered and unregistered land-related rights, restrictions and responsibilities so that people can interact and make wise decisions about land" (ICSM Intergovernmental Committee on Surveying & Mapping, n.d.).

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In the last decades of the 20th century, establishing land use restrictions became one of the priorities directions to ensure the sustainable development of territories. In the 50s and 60s of the 20th century land development was associated mainly with economic progress and the growth of economic efficiency. In the early 1970s, due to the inequitable distribution of income and the growing number of poor people in developing countries, problem of social justice was recognized as important as issues of increasing economic efficiency. However, the growing consumption of natural resources has led

to environmental degradation and negatively affected people's health. The real threat was the problem of "limits to growth", which was brought to the attention of the world society by the Club of Rome in 1972. In order to avoid an ecological crisis, it was necessary to include in the development concept a third goal – environmental preservation. This issue was raised for the first time at the UN Conference on the Human Environment (1972), which recognized the urgency of environmental issues. The development of society must take place under the condition of preserving nature (Report of the United Nations Conference on the Human Environment, 1972).

There is no absolute right of ownership of land in any country (Webster & Wai-Chung Lai, 2003). Over the world there are restrictions on land ownership due to the necessity:

- natural resources preservation;
- ensuring the economic efficiency of territory development;
- ensuring social justice and protection of the population;
- environmental stability preservation.

In Ukraine, after the war invasion of Russia, there was a necessity to establish additional restrictions on the land use, associated with military operations, destruction and the need to restore territories.

Complex interaction of the most diverse, often conflicting interests of land use takes place in society. An indispensable condition for successful development is taking into account this interaction, forecasting its consequences. In general, the functioning of the institution of land use restrictions is a system of interrelated obligations that act in the interests of the sustainable development of society and the interests of 3 persons (land owners, land users, businesses).

Based on the results of the research, the information is summarized and the structural model for determining the grounds for establishing land use restrictions is presented (Figure 1).

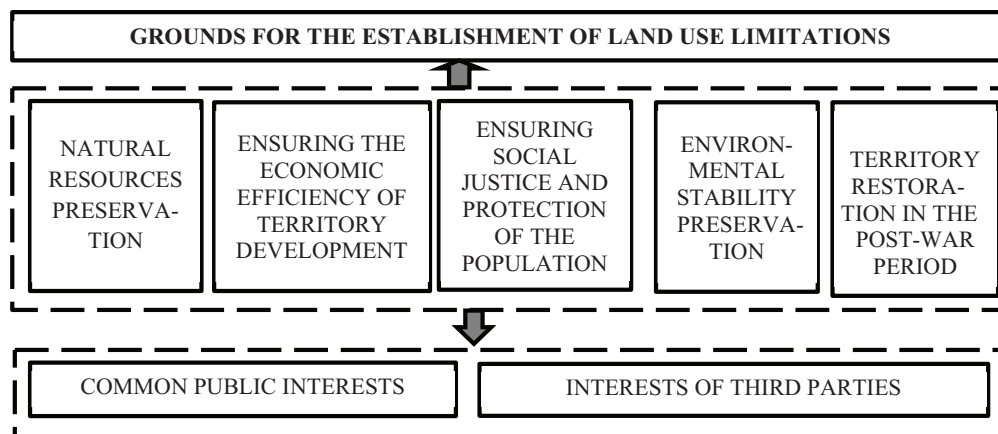


Figure 1. Structural model for determining the grounds for establishing land use restrictions in Ukraine

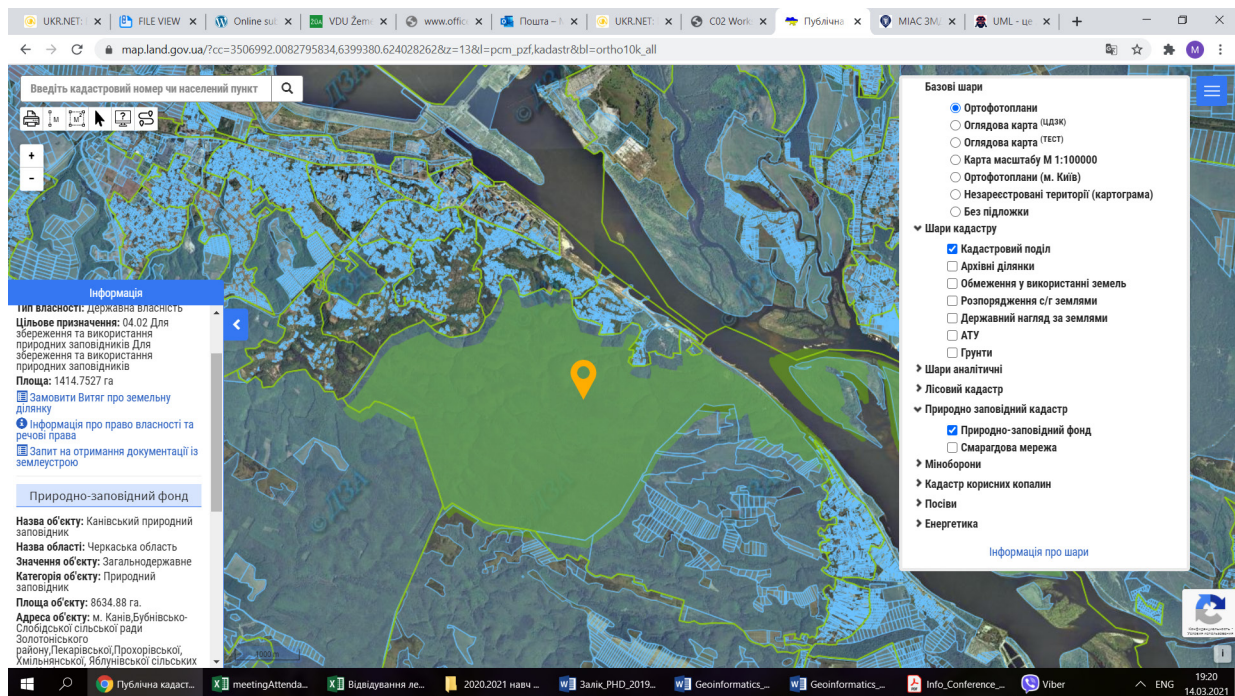


Figure 2. Layer “Nature reserve fund” Kaniv nature reserve, Cherkasy region. Fragment of the public cadastral map<sup>2</sup>

## 2. Discussions and results

The creation of conditions for natural resources preservation and restoration is defined as one of the main directions of state policy in the context of the rational use of land, water, forest and other natural resources. Establishing restrictions on the land use affects economic interests and also influences on the social conditions of the population. Ensuring the balance of economic efficiency and ecological stability is a complex task and consists in observing measures to reduce the consequences of planned activities on the surrounding environment while maximally preserving its effectiveness. Ecological interest is also seen in the preservation of an environment favourable for human life and health and the development of society. This, is confirmed by one of the legally defined principles of environmental protection – guaranteeing an ecologically safe environment for people’s life and health. (Zakon Ukrainy “Pro okhoronu navkolyshnoho pryrodnoho seredovyscha”, 2003).

Classification of land use restrictions is an important issue in the research of their diversity. An effective tool for systematization is the grouping of the set of land use restrictions into separate classes on the scientifically based classification features. The legal norms and scientific research were analysed by the authors (Barrow, 2002; Power, 2013; Palmer & Nursey-Bray, 2007; Petrakovska et al., 2022; Wilkie et al., 2006; Zakon Ukrainy “Pro derzhavnyi zemelnyi kadastr”, 2011; “Pro rehulivannia mistobudivnoi diialnosti”, 2011; “Pro zemleustrii”, 2003; Zemelnyi Kodeks Ukrainy, 2001). The analysis indicates that restrictions involve both limitations on land

ownership, and land use limitations, which provides for various conditions and prohibitions related to the functional use of land plots and objects located on them (Petrakovska et al., 2018, 2019, 2020). The authors conducted a study of legally defined land use limitations in Ukraine. In the paper the legally defined land use limitations in Ukraine take into consideration.

One of the widespread types of land use restrictions is related to the activity of the mode-forming object<sup>1</sup>, around which different zones of restrictions are established. These types of restrictions can be a protective zone around the object of a nature reserve fund, an engineering and transport infrastructure facility, a zone of sanitary protection of drinking water supply sources, a sanitary protective zone around an industrial object. The given list is examples, but it is far from complete. The nature and size of the area of effect of the restrictions depend on the features of the mode-forming object and are regulated by normative legal acts.

In addition, it is important to note that land use restrictions can be established both around the mode-forming object and within the object itself. In the first case, this is a classic variant of the formation of restrictions around the object, in the second case, the

<sup>1</sup> Mode-forming object is an object of natural or artificial origin (water, pipeline, energy, cultural heritage, military object) under which and/or around which the land use limitations are established in accordance with the legislation in connection with its natural or acquired properties (Zakon Ukrainy “Pro derzhavnyi zemelnyi kadastr”, 2011)

<sup>2</sup> Through the state of war in Ukraine, open access to the public cadastral map is temporarily limited



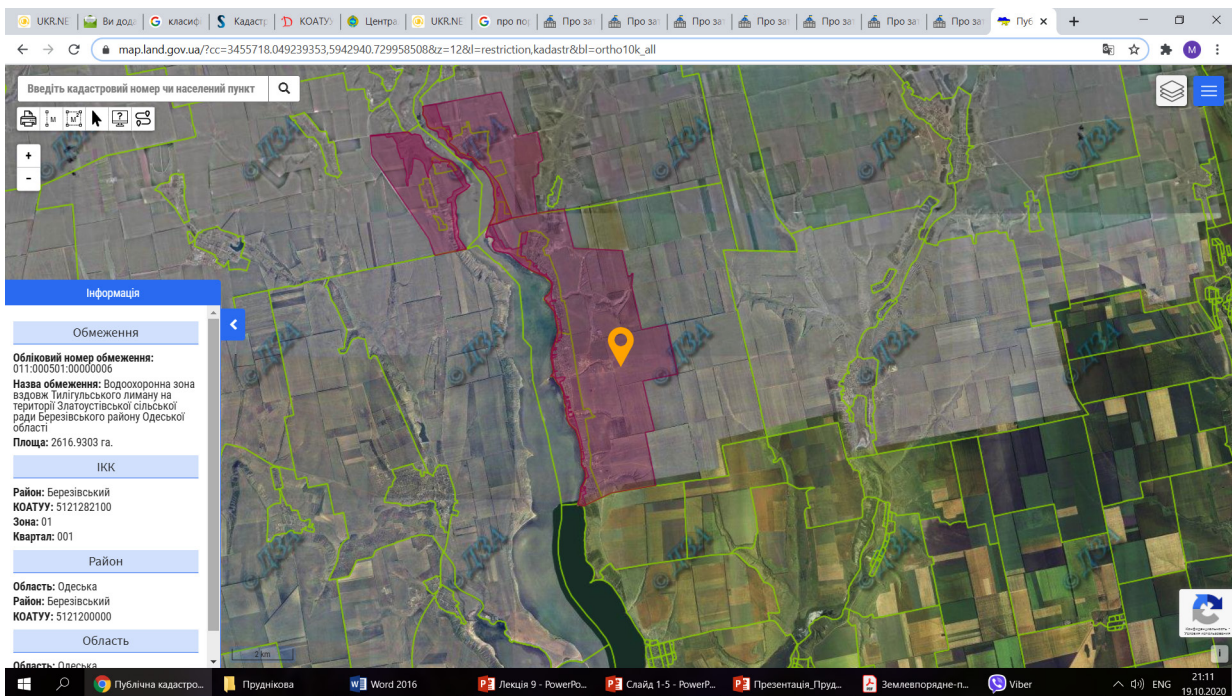


Figure 3. Fragment of the public cadastral map. Layer “Land use restrictions” Water protection zone along Tyligul estuary, Odessa region Fragment of the public cadastral map<sup>3</sup>

restriction arises in the case of official granting the object a certain status. For example, objects of historical and cultural heritage, nature reserve fund, etc. At the same time, the special regime of land use applies to all land located within such territories, regardless of the land ownership and purpose of land plot use. With this approach, the object is protected from the influence of the external environment and the prevention of any unwanted damage during its operation.

As mentioned earlier, land use restrictions are subject to state registration in the State Land Cadastre and publication in the form of open data. Providing access to information about restrictions is carried out using the software of the State Land Cadastre – the public cadastral map (Public cadastral map of Ukraine). Fragments from the public cadastral map, on which open data about land use restrictions is made public in individual layers are presented on Figures 2 and 3. Figure 2 shows the territory of the nature reserve fund object as a restriction that operates within the object itself, and Figure 3 shows the water protection restriction around the water object.

The analysis of the set of limitations and their features in terms of establishing and acquiring their legitimacy allowed authors to unite them into two aggregated groups: Limitations that are determined in the process of developing land management and urban planning documentation and limitations, size and mode of which are clearly set up by the legislative and regulatory documents. According to this, there are two ways of registration and entering the data about land use restrictions into the State Land Cadastre. In first case, land use restrictions are valid from the moment of registration in

the State Land Cadastre. It is necessary to develop land management or urban planning documentation for it. In the 2nd case, the restrictions do not require registration, but is established directly by laws and regulations.

Clarity and openness of the process of setting restrictions is of great importance for both the population and the land owners. In the case of democratic and clear publication of information about restrictions, in addition to the responsible bodies of state power and local self-government, the population are directly involved in monitoring their compliance, which is a very important factor in their viability. Since any restriction is a state interference with the rights of use the owner's awareness determines the possible directions of land plot use and directly corresponds to the potentially forecasted profits.

The study of the formation of various types of restrictions testifies that planning characteristics of land plots or their parts, on which use restrictions have been established, are of great importance. Two types of planning characteristics are highlighted in the study, which directly determine the complexity of the formation of restrictions: two-dimensional: linear, planar and three-dimensional. Examples of linear restrictions can be protected zones of along engineering networks; planar – buffer areas around an industrial object or cultural monument, three-dimensional – land use restrictions when using both surface and underground space during construction and other uses (for example, groundwater abstraction, mining, etc.). As a result of

<sup>3</sup> Through the state of war in Ukraine, open access to the public cadastral map is temporarily limited

the study of the procedure for setting various types of restrictions, it becomes clear that three-dimensional restrictions are the most complex, followed by linear, then planar.

From the point of view of monitoring compliance with the restrictions, the form of land ownership that fall within the scope of the restrictions becomes important. In the case of state and communal property, no additional problems arise when solving these issues. In the case of private land ownership, the owner must be informed of all restrictions imposed on his land plot. Such information should already be recorded upon acquisition of ownership rights, since restrictions do not cease to apply when ownership of a land plot is transferred. There may be cases when restrictions are set during operation of land plot. In this case, it is possible to establish restrictions on privately owned lands only with the consent of the owner or through the court. Certain difficulties, for example, arise when restrictions are established along long linear objects, when state, communal, private land can fall into their area of influence. This can be explained by the imperfection of the procedural issues of establishing restrictions on private land.

As well, an important condition for the owners is the duration of the restrictions. It is important for the land owner in order to plan the future use of the land. From this point of view, it should be considering open-ended and time-limited types of restrictions. An example of a time limit restriction, can be the reservation of land for further construction roads, which is valid for 10 years. After this period the land plots must be purchased or the restriction canceled.

A measure of the severity of the restriction, in addition to the limitation of functions, may also be access, which may be unlimited or have certain degrees of restrictions. For example, a special group consists of zones of special use, which are formed around defense and military facilities, access to which is limited for all but the military. Only employees of communal enterprises are allowed on the territory of the sanitary protection around water sources. This type of restrictions is aimed at preventing and making impossible actions that can harm these objects directly during their functioning. In contrast, access to the beach zone or coastal protective area is free.

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Research of diversity of land use restrictions made it possible to establish important factors that determine the difficulty of their installation, and were laid as a basis for classification. As a result of the systematization and structuring of the set of limitations, the authors proposed their classification by various signs, Table 1.

Table 1. Classification signs of land use restrictions

No.	Classification sign	Groups of limitations
1	The presence of the mode-forming object as a basis for restriction	Object is available
		Object is absent
		Status of mode-forming object is a constraint in itself
2	By degree of determination	Determined by regulatory and legal acts
		Established during the documentation development
3	By planning characteristics	Two-dimensional
		Linear
		Planar
4	By validity term	Time-limited
		Open-ended
5	By ownership of land in the area of limitations	Private
		Communal
		State
		Mixed
6	By access mode	Free
		Limited
		Not regulated
7	By status for beneficiaries of specified benefits	Public
		Private

A detailed study of different types of restrictions illustrates that the same restriction can perform different tasks (according to Figure 1), for example, conservation of natural resources and preservation of ecological stability; ensuring the economic efficiency and protection of the population; ensuring social justice and preserving natural resources, etc. A separate group of tasks is territory restoration in the post-war period, which in the first years is aimed at protecting the population. This group was not considered in detail in this study.

## Conclusions

Restrictions on land use are diversified in nature, size and grounds for establishment. The main basis for imposing restrictions on the land use in Ukraine is the necessity of natural resources preservation; ensuring the economic efficiency of territory development; ensuring social justice and protection of the population; environmental stability preservation territory restoration in the post-war period. In general, the functioning of the

institution of land use restrictions is a system of interrelated obligations that act in the interests of the sustainable development of society and the interests of 3 persons. The entire set of restrictions can be structured according to various classification features that reflect the complexity of their establishment. The most significant among which are: presence of the mode-forming object as a basis for restriction; degree of determination; planning characteristics; validity term; ownerships of land in the area of limitations; access mode status for beneficiaries of specified benefits.

The availability of complete open information regarding restrictions on land use facilitates their implementation, provides the possibility of reasonable forecasting of the development of territories in general and individual land plots in particular.

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