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**ECONOMIC ASSESSMENT OF LAND: SCIENTIFIC, LEGISLATIVE AND
REGULATORY PROBLEMS OF DEVELOPMENT**

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The decision to cancel land economic assessment out of the land valuation works needs scientific substantiation and consideration of the world practice of its application.

The research aims to study how the concept of “economic assessment” is used in the world practice, as well as analyzes its essence and performed tasks.

The article supplies analysis of the legislative and regulatory problems of development of the economic assessment of land, land resources and land use as an important economic instrument of land relations regulation and territorial spatial development of land use in Ukraine.

The research examines the thesaurus framework concerning public requests for the notions of “economic assessment of land”, “economic assessment of land use”, “economic assessment of land resources” and “economic assessment of natural resources”, “land valuation”, “land use valuation” and “land resources valuation”. It is confirmed that the concepts of “economic assessment of land”, “economic assessment of land resources”, “economic assessment of natural resources” are less often used in the world practice as compared to such notion as “economic assessment of land use”. However, in the world practice, the most widely

used notion is “land use valuation”, the second position is taken by “land resources valuation”, whereas “land valuation” is rarely used. It is confirmed that the notion of “economic assessment” is up-to-date and is widely used in the developed market economies. In Ukraine, the concept of “economic assessment of land” is not quite correct. To activate scientific researches and to shape the legislative and regulatory supply for development of economic assessment of land and other natural resources, as well as land use, the work clears up the conceptual essence, which should be interpreted as a money expression of economic or social value of both economic and environmental assets, determined by natural peculiarities.

Findings of the research confirm that economic assessment determines the value of land, land resources and land use that is estimated by the effect, which the land-holder obtains from using the land or other natural resources within the ecosystem area. The research defines their targeted use. It is identified that the objects of economic assessment include land, land resources, land use, ecosystem services, land and environmental losses.

Prospects of the further research involves studying the targeted use for effective employment of the economic assessment objects.

Key words: *economic assessment of land, economic assessment of land use, economic assessment of land resources.*

Introduction. In the system of management of land resources and land use, economic assessment of land (*more clearly, it is **land use** as an economic category, which is characterized by the concepts of “property” and “land capital”*) is one of the management tools. According to the article 1 of the Law of Ukraine “On land assessment” in the edition of 2003, **economic assessment of land** is “evaluation of land as a natural resource and production means in agriculture and forest husbandry, and as a spatial basis in public production by the indices characterizing productivity of land, efficiency of its use, and profitability per one unit of area” [1]. Therefore, the first part of the definition deals with assessment of land resources in agriculture and forest husbandry and land as a spatial basis for public production. The second part of the definition identifies the indices of assessment, which actually characterize the land use.

Article 5 of the Law of Ukraine “On land assessment” [1] in edition of 2003 declares that the “*data of economic assessment of land are fundamental for normative monetary valuation of land plots, analysis of the land use efficiency as compared to other natural resources, and determination of economic suitability of agricultural lands for growing agricultural crops*”. The data of economic assessment can be also used for differentiation of the land tax and lease payment depending on the share of land lease for agricultural land use, determination of the land use non-market value, development of sustainable (balanced) land use. Unfortunately, the article 200 of the Land Code of Ukraine [2] and paragraph three of the first part of the article 5 of the Law of Ukraine “On land assessment” were cancelled basing on the Law № 1423-IX of April 28, 2021 [3], as it was mentioned in the explanatory note to the Law of Ukraine “On introduction of changes to the Land Code of Ukraine and other legislative acts on improvement of the system of management and deregulation in the land relations sphere” with the statement “To improve the laws on land assessment 1) *economic assessment of land should be dropped out of the land valuation works as it is out-of-date and archaic kind of assessment of the Soviet period, last used in Ukraine in 1988 and totally ignored in the developed market economies*”. Therefore, legislators and government neglected the demand for data of economic assessment of land for analysis of the land use efficiency in comparison to other natural resources and determination of economic suitability of agricultural lands for growing agricultural crop, and dropped it out of the list of land valuation works. The current research aims to analyze relevance of such changes.

The ***goal of the article*** is to substantiate the scientific and regulatory issues of development of the economic assessment of land, land resources and land use as an important instrument used to regulate land relations and territorial spatial development of land use in Ukraine.

Analysis of recent research and publications. In scientific research Dekhtyarenko Yu., Dobryak D., Zayats V., Ibatullin Sh.I., Mesel-Veselyak V., Palekha Yu., Tretyak A., Martin A., Mikula O., Fedorov M., Kovalyshyn O, Ryzhok Z. and other scientists are considering methodological principles for improving the economic valuation of land. In modern economic conditions there is a need to update

research that would reflect the relationship between the natural properties of soils and the economic effect of their use.

The purpose and objectives of the study is the substantiation of scientific and legislative problems of economic evaluation of land, land resources and land use as an important economic tool for regulating land relations and territorial and spatial development of land use in Ukraine.

Research methodology. The following methods were used in the study: analysis and synthesis (during the study of the use of land valuation terms in the context of world practice); abstract-logical (for theoretical generalizations and formulation of conclusions).

Presentation of the main research material. Relevance of the decision to cancel land economic assessment out of the list of land valuation works is studied in the work by analyzing the concepts of “**economic assessment of land**”, “*economic assessment of land use*”, “*economic assessment of land resources*” and “*economic assessment of natural resources*”, “*land valuation*”, “*land use valuation*” and “*land resources valuation*” in the world practice (Table 1).

Table 1. Thesaurus framework of the public requests for economic assessment of land in Ukraine and in the world

Language frames and categories	References in Google, <i>thousands.</i>
Economic assessment of lands	10 100 49 700
Economic assessment of land use	779 927 000
Economic assessment of land resources	3 610 631 000
Economic assessment of natural resources	8 800 952 000
Land valuation	19 300 2 790
Land use valuation	1 080 466 000
Land resources valuation	3 690 286 000

Google is one of the most powerful search engines in the Internet.

Data in the Table 1 show that in the world practice, the request for the concept of “economic assessment of land” is often made (49.7 million times), whereas “economic assessment of land use” is the most often requested concept (927 million times), that is almost 93 times more.

The concept of “economic assessment of land resources” in the world practice is used 631 million times, whereas in Ukraine – 3.6 million times. The concept of “economic assessment of natural resources” is used 952 million times in the world, since in Ukraine – only 8.8. million times. Therefore, “*economic assessment of land use*” is the most often used concept in the world, whereas the concept of “economic assessment of land” is not quite correctly interpreted in Ukraine.

Besides, the authors of the research have studied the requests for the concepts of “*land valuation*”, “*land use valuation*” and “*land resources valuation*” in Ukraine and in the world. Table 1 demonstrates that in Ukraine, the most often used concept is “land valuation” (19.3 million), whereas in the world, it is “*land use valuation*” (466 million), the second position is taken by – “*land resources valuation*” (286 million), whereas “*land valuation*” is almost not used (2.8 million). Thus, the concept of “*economic assessment*” is up-to-date and is widely used in the developed market economies.

Moreover, it is worth noting that the article 44 of the Law of Ukraine “On natural-reserved fund of Ukraine” [4] mentions the concept of “*economic assessment of territories and objects of the natural-reserved fund*”, which is conducted according to the article 45 for “*economic substantiation of the natural-reserved fund development as well as economic assessment of natural complexes and objects that are in its structure*”. Article 7 of the Law of Ukraine “On natural-reserved fund of Ukraine” [4] says that “*land of the natural-reserved fund is made of the land plots of dryland and water space with the natural complexes and objects, which have particular environmental, ecological, scientific, esthetic, recreational and other value, and which have got the status of territories and objects of the natural-reserved fund according to the Law*”.

To activate scientific researches and create the legislative supply for development of economic assessment of land and other natural resources, as well as

land use in Ukraine, it is necessary to shape its conceptual framework. The conceptual framework of the economic assessment of land, land use and land resources should explain its goals and objects.

Economic assessment of land, land resources and land use is considered as money terms of the economic or public value that is an economic and ecological asset, determined by natural peculiarities. The value of land, land resources and land use is estimated by the effect, the land-user obtains while using the land and other natural resources within the land use ecosystem. Economic assessment of land, land resources and land use is applied for the following purposes:

- 1) to determine the value of land resources in money terms;
- 2) to choose the best possible parameters of using the land, land resources and land use as an ecosystem;
- 3) to estimate economic efficiency of investments in land use;
- 4) to estimate losses from irrational land use;
- 5) to evaluate the share of land resources in the structure of national wealth;
- 6) to fix payments and excises for the use of land and land resources;
- 7) to fix fines for violation of the conditions of using lands and land resources, and for making harm to other natural resources;
- 8) to determine the collateral value of land use;
- 9) to make forecast and planning of the land resources use and develop land use at different hierarchy levels;
- 10) to determine the size of reimbursement, related with exclusion or change in the intended use of land resources;
- 11) to substantiate the most rational forms of possessing land and other natural resources.

The peculiarity of economic assessment of land, land resources and land use is related with the choice of an object, as well as ways and criteria of assessment.

Objects of economic evaluation are presented in Fig. 1.


Objects of economic assessment of land, land use and land resources			
Land, land and resource potential	Land use as an ecosystem and objects of agrarian, natural and property estate that are owned, as well as different rights, related with their use	Ecosystem services, land and environmental benefits	Land and environmental losses

Figure 1. Objects of economic assessment of land, land use and land resources

They are:

- 1) land resource and other natural potential;
- 2) land use as an ecosystem and economic category, which is characterized by the concepts of “*property*” and “*land capital*”. In Ukrainian legislation it is also classified as real estate that includes a land plot (that is based on land resources in agriculture and forest husbandry, as well as land use and land in other industries) and other natural resources and property, which are inseparable from the land plot and its right to ownership;
- 3) ecosystem services and environmental benefits in the process of land use;
- 4) environmental losses in the process of land use.

According to the article 1 of the Law of Ukraine “On land protection”, *land* is a “surface of dryland with soils, minerals and other natural elements that are organically combined and perform with it” [5]. The same article says that *land resources* create an “integral natural resource of land surface as a spatial basis of settlement and economic activities, a fixed asset in agriculture and forest husbandry” [5]. The concept of economic assessment of land resources is related with the philosophic category of “value”. Value reveals the object importance, determined by human need for it and the object’s specific properties. Economic assessment of land resources involves comparison of properties, characterizing the resource, with the conditions of the value, determined by human society. Depending on the kind of human needs, the value can be material, social and political, esthetic and others. Therefore, one should specify:

 *economic assessment* – determination of the public value of land resources (*i.e. contribution to satisfaction of public needs through production or*

consumption);

✚ **non-economic assessment** – determination of environmental, social, recreational or other value of the resource that is not revealed in economic indices (*however, it can be conventionally calculated in money terms as a sum, which the society is ready to sacrifice for the resource protection*).

Therefore, the **land and resource potential**, as an object of economic assessment, is an integral productivity of all used land resources or those, which can be used as production means and consumption items in their total social utility and value; the most important constituent of the natural and resource potential.

Unfortunately, Ukrainian laws do not define the concept of “**land use**”. According to A.M. Tretiak, **land use** is defined as a “process of human (society) use of the territory integral potential, which includes all resources on the corresponding land plot of geo space; it is a constituent of the social and territorial complex of regional level and makes its structure more complicated that is revealed in the process of land relations regulation” [6].

Land use represents activities, that are carried on the land, and organizational forms that are used on the mentioned land plot to reach the goals of (a) economic production or (b) support and recovery of ecological functions [7]. Therefore, according to the international classification, **land use** is identified as a “*unique natural asset, which outlines the space, is engaged in economic activities and environmental processes, and where the environmental and economic assets are placed*” [7].

Therefore, objects of economic assessment can include:

❖ **land** in the form of outlined space (*lands and territories of functional use*), is a spatial basis of human living, including minerals and other natural elements that are organically combined and perform together with it;

❖ **land resources**, as a spatial basis of settlement and economic activities, a fixed asset of production in agriculture and forest husbandry;

❖ **land use**, as a unique natural asset, which outlines a space, is engaged in economic activities and environmental processes, and where the environmental and economic assets are placed. In that case, economic assessment will be of branch

character. Besides the branch assessment, it is also important to make regional assessment, i.e. assessment of the total integrity of territory resources, i.e. territorial combination of land and other natural resources. Territorial combination of land and other natural resources – is a source of resources of different kind, placed on an integral territory and joint by current or prospective complex development and use, e.g., territory of the natural-reserved fund or total reserves of the natural and resource potential, characterizing the natural and resource capacities of the territory (*amalgamated territorial community, district, region, country*);

❖ ***ecosystem services*** as a specific form of using the components of natural environment of the ecosystem land use to satisfy various public and ecological needs. Ecosystem services are not directly expressed in money terms, but they satisfy different human needs (*land benefits*), including material (*need for food, shelter, etc.*);

❖ ***land and environmental losses***, as actual and probable losses because of some effects, particularly negative changes in land resources and environment due to anthropogenic activities. ***Land losses*** are characterized by violation (losses) in the process of land use and protection. ***Environmental losses*** are characterized by violation (losses) in the process of land use as an ecosystem. Unfavorable consequences can be produced even by the slightest deviation from optimal conditions, whereas a critical level of deterioration causes irreversible alterations in the land use as an ecosystem. Land and environmental losses can be presented in kind and value. *In kind* means a harm, caused by the elements of land use (*soil, biological diversity, etc.*) because of the negative impact of human economic activities on land and other natural resources. Land and environmental losses, represented in value form, are estimated as losses of society, related with a change of the land use ecosystem. In that case, environmental loss has the following synonyms, namely “economic loss from land pollution”, “economic loss from environmental disturbance”, etc., e.g. cost of pollution reduction, cost of human health risk compensation.

Conclusions. Study of the concepts of “economic assessment of land”, “economic assessment of land use”, “economic assessment of land resources” and

“economic assessment of natural resources”, “land valuation”, “land use valuation” and “land resources valuation” in context of the world practice has shown that the concept of “economic assessment of land resources” is used 631 million times in the world practice, whereas in Ukraine – 3.6 million times. The concept of “economic assessment of natural resources” is used 952 million times in the world, and in Ukraine – 8.8 million times. Therefore, “economic assessment of land use” is the concept that is the most often used in the world, whereas the concept of “economic assessment of land” that is used in Ukraine is not quite correct. Moreover, in Ukraine the most spread concept is “land valuation” (19.3 million requests), whereas in the world – it is “land use valuation” (466 million requests), the second position is taken by the concept of “land resources valuation” (286 million requests), whereas “land valuation” is almost not used (2.8 million). To sum up, the concept of “economic assessment” is up-to-date and widely used in the developed market economies.

It is substantiated that objects of economic assessment include: land, land resources, land use, ecosystem services, land and environmental losses.

References

1. The Verkhovna Rada of Ukraine (2012), The Law of Ukraine "On Land Assessment", available at: <https://zakon.rada.gov.ua/laws/show/1378-15#Text>
2. The Verkhovna Rada of Ukraine (2001), The Law of Ukraine "Land Code of Ukraine", available at: <https://zakon.rada.gov.ua/laws/show/2768-14#Text>
3. The Verkhovna Rada of Ukraine (2001), The Law of Ukraine " On amendments to the Land Code of Ukraine and other legislative acts concerning improvement of the system of management and deregulation in the field of land relations", available at: <https://www.rada.gov.ua/news/Povidomlennya/207535.html>
4. The Verkhovna Rada of Ukraine (1992), The Law of Ukraine “On the Natural Preserve Fund of Ukraine”, available at: <https://zakon.rada.gov.ua/laws/show/2456-12#Text>
5. The Verkhovna Rada of Ukraine (2003), The Law of Ukraine " On Land Protection ", available at: <https://zakon.rada.gov.ua/laws/show/962-15#Text>
6. Tretiak A.M. (2012), Ecology of land use: theoretical and methodical principles of formation and administration, Hrin D.S., Kherson, Ukraine.

7. Guide on international classification for agricultural statistics. Joint publication of the FAO and Statistics Office of the UNO Department of Economic and Social Development. (2015), available at: http://www.cisstat.com/gsagr/Guidelines-for-Int-Classifications-on-Agricultural-Statistics_Rus.pdf

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ЕКОНОМІЧНА ОЦІНКА ЗЕМЕЛЬ: НАУКОВІ ТА ЗАКОНОДАВЧО-НОРМАТИВНІ ПРОБЛЕМИ РОЗВИТКУ

Виключення зі складу землеоціночних робіт економічної оцінки земель вимагає наукового обґрунтування та досліджень світової практики її використання.

Мета досліджень полягала у виявленні вживання терміну «економічна оцінка» у світовій практиці, його понятійного змісту та завдань, які він виконує.

У статті проведено аналіз законодавчо-нормативних проблем розвитку економічної оцінки землі, земельних ресурсів та землекористування як важливого економічного інструменту регулювання земельних відносин та територіально-просторового розвитку землекористування в Україні. Проведено дослідження тезаурсного каркасу щодо суспільних запитів термінів «економічна оцінка земель», «економічна оцінка землекористування», «економічна оцінка земельних ресурсів» та «економічна оцінка природних ресурсів», «оцінка вартості земель», «оцінка вартості землекористування» та «оцінка вартості земельних ресурсів». З'ясовано, що термін «економічна оцінка земель», «економічна оцінка земельних ресурсів», «економічна оцінка природних ресурсів» у світової практиці є менш вживаними порівняно з терміном «економічна оцінка землекористування». Одночасно, в світовій практиці найбільш поширеними є «оцінка вартості землекористування», на другому місці – «оцінка вартості земельних ресурсів», а «оцінка вартості земель» майже не використовується. Доведено, що термін «економічна оцінка» є сучасним та застосовується у розвинених країнах із ринковою

економікою. В Україні «економічна оцінка земель» є не зовсім коректною. Для активізації наукових досліджень та створення законодавчо-нормативного забезпечення розвитку економічної оцінки земельних та інших природних ресурсів і землекористування розкрито їх понятійний зміст, під яким слід розуміти грошовий вираз господарської або суспільної цінності як економічного та екологічного активу, обумовленої природними особливостями.

Результати роботи довели, що економічна оцінка визначає цінність землі, земельних ресурсів та землекористування ефектом, який отримує землекористувач під час експлуатації земельних та інших природних ресурсів в межах землекористування як екосистеми. Обґрунтовано, що об'єктами економічної оцінки є: земля, земельні ресурси, землекористування, екосистемні послуги, земельні та екологічні збитки.

Перспектива подальших досліджень полягає у визначенні цілей застосування для ефективного використання об'єктів економічної оцінки.

Ключові слова: *економічна оцінка земель, економічна оцінка землекористування, економічна оцінка земельних ресурсів.*