STAGES OF THE CURRENT STATE OF LAND FORESTRY PURPOSES AND FEATURES OF THEIR USE IN THE CONTEXT OF THE LEGAL REGIME

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DOI: https://doi.org/10.31435/rsglobal_ws/30062020/7104

ABSTRACT
The article analyzes the structure of the land fund, the distribution of Ukraine's forest area by predominant tree species, and states that the division of land by categories is a dynamic process, whenever in the course of economic activity on land there may be a need to change its purpose. Determining and changing the ownership of a land plot to a certain category of land is the prerogative of public authorities − state and local self-government, which are endowed with such powers. The analysis of forest cover in Ukraine in terms of natural zones and structure of land for forestry purposes in Ukraine, where from the total area of forestry lands and forests on other categories of lands is 10.8 million hectares, of which 9.7 million hectares are covered with forest vegetation. The analysis of the given data testifies to an uneven arrangement of the specified category of lands of the territory of Ukraine. In particular, they are concentrated mainly in Polissya and the Ukrainian Carpathians. The stages of legal regulation and use of forest lands are proposed. Regarding the solution of these two problems lies in the plane of decision-making on land use, establishing a socially optimal purpose of land, compliance with land legislation, promoting reforestation and afforestation; stimulating the preservation and increase of forest land productivity, which requires the use of levers of influence on land and forest users; irrational use of forest lands, which leads to loss of potential benefits of the landowner.

KEYWORDS
forest lands, forest ecosystems, ecosystem, balanced development.

Citation: Bondar V. N. (2020) Stages of the Current State of Land Forestry Purposes and Features of Their Use in the Context of the Legal Regime. World Science. 6(58), Vol.1. doi: 10.31435/rsglobal_ws/30062020/7104

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Problem statement. Today, forestry lands occupy an important place among the categories of lands of Ukraine and have a special legal regime. The basis for the allocation of forest lands in a separate category are the following features: germination of forest vegetation in their territory, forestry, including through the reproduction of forests, increase their productivity, quality composition and conservation of biodiversity [1; 2].

An important factor in balanced forest use is the ecological and economic assessment not only of the results of the use of forest resources, but also of the useful functions of the forest. A necessary condition for such an assessment should be a system of ecologically sound forest use, which would take into account the natural patterns of development of forest ecosystems. Such an assessment should be used to reflect the value of forests as part of a country's national wealth; analysis of forestry activities of enterprises and forest
users; substantiation of the effectiveness of all forestry measures; maintaining the state forest cadaster; establishing the amount of damage caused to forests; collection of fees for forest use [3].

**Analysis of recent research and publications.** The issue of forest land use has been studied by such scientists as Khavar Yu.S., Chopnyk O.P., Synyakevych I.M., Furdychko O.I., Shershun M.H., Drebot O.I., Antonenko I.Ya. It is in the scientific research of these scientists that the theoretical and methodological principles of effective use and conservation of forest lands are substantiated.

**Problem statement.** The purpose of our study is to analyze the current state and make recommendations for improving the mechanism for ensuring the effective use and protection of forest lands based on the study of theoretical and applied aspects of land use in the forest sector.

**Presentation of the main material.** It is well known that forestry is the second largest form of land use in Europe after agriculture. After all, it is a specific intersectoral structure, the main task of which is the cultivation of multifunctional forest plantations used for the formation of green areas, forest parks, water protection, soil protection and recreational forests, conservation and reproduction of biodiversity, timber harvesting, forest resources [4]. According to Art. 34 of the Forest Code of Ukraine [5], forestry should ensure forest management on the basis of sustainable development, taking into account natural and economic conditions, purpose, forest plant characteristics, species composition of forests, as well as the functions they perform.

The land fund of Ukraine, according to Dana’s Department of State Land Cadaster, as at 01.01. 2017 [6] of 60 354.8 thousand hectares (Table. 1).

As seen in the structure of land fund most of the territory occupied by agricultural land – 71 %, forests and other wooded areas – 17.6 %, built-up land – 1.6 %, open lands without vegetation or with little vegetation (rocky places, sands, other ravines) – 1.7 %, the territory of the pit covered with surface waters – 4 %.

Table 1. Land Fund of Ukraine (01.01.2017)

| The main types of land and economic activity | Land area | Total thousand hectares | % to the total area of Ukraine |
|---------------------------------------------|-----------|-------------------------|--------------------------------|
| Agricultural lands                          | 42813.7   | 71.0                    |                                |
| including: agricultural land                | 41569.4   | 68.9                    |                                |
| of them:                                    |           |                        |                                |
| arable                                      | 32478.4   | 53.8                    |                                |
| fallsow                                     | 320.8     | 0.5                     |                                |
| perennial plantings                         | 897.7     | 1.5                     |                                |
| hayfields                                   | 2409.8    | 4.0                     |                                |
| pastures                                    | 5489.7    | 9.1                     |                                |
| other agricultural lands                    | 1244.3    | 2.1                     |                                |
| Forests and other wooded lands              | 10591.9   | 17.6                    |                                |
| including:                                  |           |                        |                                |
| covered with forest vegetation              | 9675.4    | 16.0                    |                                |
| not covered with forest vegetation          | 198.9     | 0.4                     |                                |
| Land for commercial and other purposes      | 52.1      | 0.1                     |                                |
| Public lands                                | 281.8     | 0.5                     |                                |
| Land of mixed use                           | 28.9      | 0.1                     |                                |
| Land used for transport, communications     | 493.4     | 0.8                     |                                |
| Lands used for technical infrastructure     | 65.1      | 0.1                     |                                |
| Lands used for recreation and other open lands | 743.9   | 1.3                     |                                |
| Open wetlands                               | 979.4     | 1.6                     |                                |
| Dry open lands with special vegetation      | 17.6      | 0.1                     |                                |
| Open lands without vegetation or with insignificant vegetation (stony places, sands, ravines, others) | 1029.9 | 1.7 |                                |
| Waters (areas covered by surface waters)    | 2423.5    | 4.0                     |                                |
| Total (territory of Ukraine)                | 60354.8   | 100                     |                                |

*Source: developed by the author based on data [6]*
Analyzing the distribution area of land for forestry purposes by primary species in the oblasts of Ukraine, we can conclude that the correct their use largely depends not only on the successful development of the economy, but the state of the environment (Fig. 1).

![Distribution of forests in Ukraine by predominant tree species, %](image)

*Source: developed by the author based on data [6].

After all, forest ecosystems and forestry lands of Ukraine have certain features in comparison with other European countries, in particular:
- lower than the average European level of forest cover in the country;
- the predominant ecological value of forests and their high share up to 50% with limited use;
- significant areas of protected forests (15.4%), and have a steady upward trend;
- half of the forest plantations are artificially created and need intensive care;
- lack of an economic mechanism to stimulate, preserve and reproduce the potential productivity of lands, in particular forest lands.

Regarding the interdepartmental distribution of these lands (Fig. 2), the largest share (68%) falls on the State Forest Agency, the Ministry of Agrarian Policy − 1.8 million hectares (17%), the Ministry of Defense − 0.2 million hectares (2%), the Ministry of Emergencies − 0.2 million hectares (2%), the Ministry of Environment − 0.1 million hectares (1%), the Ministry of Infrastructure − 0.1 million hectares (1%), other ministries and departments − 0.2 million hectares (%), located on reserve lands and not provided for use − 0.8 million hectares (7%) [Official site of the State Agency of Forest Resources].

![Departmental allocation of land for forestry purposes in Ukraine, 2017](image)

*Source: developed by the author based on data [7].
The results of the analysis of the current state of distribution and use of forest lands are an objective basis for claiming the imperfection of relations in this segment of the economy. On the one hand, they are an integral part of nature management with all the general features of the latter, on the other - have certain specifics and need improvement, primarily in accordance with current trends in socio-economic development, which are primarily related to Ukraine's accession to the WTO and integration into the world economy, the urgent tasks of reforming economic relations and institutional structures in the forest and land sectors in terms of sustainable development.

The negative consequences of anthropogenic transformation of forest lands are:
- defragmentation of natural and natural-anthropogenic landscapes;
- loss of habitats of species;
- reduction of biological diversity;
- quantitative destruction of valuable elements of landscapes and their components;
- deterioration of qualitative characteristics of component landscapes.

The main causes of problems in forestry regarding land relations are imperfect redistribution of forest lands between users, incomplete processes of reforming environmental, economic and legal property relations, inefficient system of public administration in the field of land use and protection, land legislation and land market infrastructure, incomplete formation automated system of state land cadaster, the ineffectiveness of the mechanism of economic incentives for land use and protection [8].

There is a significant decrease in the area of land used by agricultural enterprises. As a result of denationalization and unbundling of lands, the share of private property of citizens who have the right to manage these lands independently or lease them has significantly increased, as well as the gradual expansion of land used by forestry enterprises (Table 2).

Dynamics of changes in the structure of the land fund of Ukraine for the period 1998-2016 years. The main types of land use and functional, shown in Fig. 2 and in table. 2. The latter indicates changes in its structure by main types of land, as well as by main land users and landowners.

Table 2. The structure of the land fund of Ukraine by main land users and landowners

| Major land users and landowners                      | 1998 Area, thousand hectares | 1998 % | 2007 Area, thousand hectares | 2007 % | 2008 Area, thousand hectares | 2008 % | 2009 Area, thousand hectares | 2009 % | 2010-2016 Area, thousand hectares | 2010-2016 % |
|-----------------------------------------------------|------------------------------|--------|------------------------------|--------|------------------------------|--------|------------------------------|--------|------------------------------|-------------|
| Agricultural enterprises                           | 40805.5                      | 67.6   | 21143.3                      | 35.1   | 19507.9                      | 32.3   | 18367.8                      | 30.4   | 17787.2                      | 29.7        |
| Citizens                                            | 5933.9                       | 9.8    | 17773.4                      | 29.5   | 19064.9                      | 31.6   | 19908.0                      | 33.0   | 20192.6                      | 33.5        |
| Institutions, institutions, organizations; enterprises of transport, communication; industrial enterprises; units, organizations, defense educational institutions | 2337.8                       | 3.9    | 2615.6                       | 4.3    | 2594.2                       | 4.3    | 2518.7                       | 4.2    | 2380.8                       | 4.0         |
| Forestry enterprises                                | 7022.6                       | 11.6   | 8484.7                       | 14.1   | 8540.0                       | 14.1   | 8550.1                       | 14.2   | 8582.5                       | 14.3        |
| Reserve lands and lands not provided for ownership and use within settlements | 3353.9                       | 5.6    | 9438.4                       | 15.6   | 9783.1                       | 16.2   | 10155.9                      | 16.8   | 10567.3                      | 17.2        |
| Other land users                                    | 901.1                        | 1.5    | 854.3                        | 1.4    | 864.7                        | 1.4    | 854.3                        | 1.4    | 844.4                        | 1.4         |
| Total                                               | 60354.8                      | 100    | 60354.8                      | 100    | 60354.8                      | 100    | 60354.8                      | 100    | 60354.8                      | 100         |

*Source*: developed by the author on the basis of the Statistical Yearbook of Ukraine.
Table 3. The structure of the land fund by the main types of land and functional use in Ukraine

| Major land users and landowners | 1998 | 2008 | 2009 | 2010 | 2011-2016 p. |
|--------------------------------|------|------|------|------|--------------|
|                                 | Area, thousand hectares | %    | Area, thousand hectares | %    | Area, thousand hectares | %    | Area, thousand hectares | %    | Area, thousand hectares | %    |
| Agricultural lands              | 41890.1 | 69.4 | 41763.8 | 69.2 | 41722.2 | 69.1 | 41675.9 | 69.1 | 41625.8 | 69.0 |
| Forestry lands                  | 10331.0 | 17.1 | 10475.9 | 17.3 | 10503.7 | 17.4 | 10539.9 | 17.5 | 10570.1 | 17.5 |
| Built-up land                   | 2386.2 | 4.0  | 2458.3 | 4.1  | 2467.5 | 4.1  | 2470.2 | 4.1  | 2489.0 | 4.1  |
| Open wetlands                   | 920.8  | 1.5  | 957.1  | 1.6  | 966.0  | 1.6  | 972.4  | 1.6  | 978.0  | 1.6  |
| Open lands without vegetation  | 1105.6 | 1.8  | 1039.0 | 1.7  | 1040.5 | 1.7  | 1042.5 | 1.7  | 1032.8 | 1.7  |
| Other lands                     | 1301.2 | 2.2  | 1239.6 | 2.1  | 1238.0 | 2.1  | 1235.2 | 2.0  | 1236.6 | 2.1  |
| Water                           | 2419.6 | 4.0  | 2421.1 | 4.0  | 2416.9 | 4.0  | 2418.7 | 4.0  | 2422.5 | 4.0  |
| **Total**                       | 60354.8 | 100  | 60354.8 | 100  | 60354.8 | 100  | 60354.8 | 100  | 60354.8 | 100  |

*Source: developed by the author on the basis of the Statistical Yearbook of Ukraine.

Regarding the structure of the land fund in terms of major land users and landowners, the area of land provided for ownership or use to citizens increased from 5.93 million hectares, as of January 1, 1998 to 20.19 million hectares, as of January 1, 2016 (respectively from 9.8% to 33.5%); the area of forestry enterprises increased from 7.02 million hectares to 8.58 million hectares (by 1.56 million hectares); the area of reserve lands and lands not provided for ownership or permanent use increased from 3.35 million hectares to 10.57 million hectares by 7.22 million hectares. Instead, the area of agricultural enterprises decreased from 40.8 million hectares to 17.8 million hectares (from 67.6% to 29.7%, respectively) [6].

Thus, from the above data we can conclude that the division of land into categories is a dynamic process, at any time in the course of economic activity on the land there may be a need to change its purpose. Determining and changing the ownership of a land plot to a certain category of land is the prerogative of public authorities – state and local self-government, which are endowed with such powers.

In the general structure of the land fund of Ukraine, forest lands occupy 17.6%, but in the Carpathian region − 48%, Polissya − 26.8%, the least in the steppe − 5.3%, which indicates the urgency of this problem.

Fig. 3. Forest cover in Ukraine in terms of natural areas, 2016 %
*Source: developed by the author based on data [6;7].
The total area of forestry lands and forests on other categories of lands is 10.8 million hectares, of which 9.7 million hectares are covered with forest vegetation. (Table 5) [7].

The analysis of the given data testifies to an uneven arrangement of the specified category of lands of the territory of Ukraine. In particular, they are concentrated mainly in Polissya and the Ukrainian Carpathians.

The largest area of forestry lands - in the Zhytomyr region - 1094.4 thousand hectares, and the smallest - 94.9 thousand hectares in the Nikolaev area. If we consider the area of land of administrative-territorial units in terms of the most covered with forest vegetation, they predominate in the Vinnytsia region and account for 95.3% of the total area of its territory (351.4 thousand hectares). The least forested lands are located in the Kherson region – respectively 61% (132.4 thousand hectares).

Table 5. General data on forestry lands in Ukraine (01.01.2016)

| Administrative-territorial unit | Total area, thousand km² | The total area of forestry land, as of 01.01.2016, thousand hectares | Land covered with forest vegetation, thousand hectares on 01.01.2016 |
|---------------------------------|-------------------------|-------------------------------------------------------------|---------------------------------------------------------------|
| Crimea                          | 26.1                    | 330.7                                                       | 276.3                                                        | 83.6 |
| Vinnytsia                       | 26.5                    | 368.6                                                       | 351.4                                                        | 95.3 |
| Volyn                           | 20.2                    | 702.5                                                       | 632.4                                                        | 90   |
| Dnipropetrovsk                  | 31.9                    | 197.1                                                       | 152.8                                                        | 77.5 |
| Donetsk                         | 26.5                    | 213.9                                                       | 185.5                                                        | 86.7 |
| Zhytomyr                        | 29.9                    | 1096.4                                                      | 989                                                          | 90.2 |
| Transcarpathian                 | 12.8                    | 695.8                                                       | 652.9                                                        | 93.8 |
| Zaporozhye                      | 27.2                    | 125.2                                                       | 105.4                                                        | 84.2 |
| Ivano-Frankivsk                 | 13.9                    | 625.9                                                       | 576.7                                                        | 92.1 |
| Kyiv                            | 28.1                    | 731.5                                                       | 600.9                                                        | 82.1 |
| Kirovograd                      | 24.6                    | 175.1                                                       | 158.8                                                        | 90.7 |
| Luhansk                         | 26.7                    | 362.2                                                       | 282.9                                                        | 78.1 |
| Lviv                            | 21.8                    | 682.8                                                       | 626.4                                                        | 91.7 |
| Mykolayivska                    | 24.6                    | 134.8                                                       | 94.9                                                         | 70.4 |
| Odessa                          | 33.3                    | 259.8                                                       | 195.3                                                        | 75.2 |
| Poltava                         | 28.8                    | 271.5                                                       | 236.2                                                        | 87   |
| Rivne                           | 20.1                    | 849.8                                                       | 731.7                                                        | 86.1 |
| Sumy                            | 23.8                    | 442.8                                                       | 403.8                                                        | 91.2 |
| Ternopil                        | 13.8                    | 207.8                                                       | 192.4                                                        | 92.3 |
| Kharkiv                         | 31.4                    | 415.5                                                       | 372.7                                                        | 89.7 |
| Kherson                         | 28.5                    | 217.2                                                       | 132.4                                                        | 61   |
| Khmelnytsky                     | 20.6                    | 283.8                                                       | 262.7                                                        | 92.6 |
| Cherkasy                        | 20.9                    | 345.8                                                       | 319.3                                                        | 92.3 |
| Chernivtsi                      | 8.1                     | 261.8                                                       | 237.8                                                        | 90.8 |
| Chernihiv                       | 31.9                    | 713.4                                                       | 656.6                                                        | 92   |
| m. Kyiv                         | 0.8                     | 35.8                                                        | 31.3                                                         | 87.4 |
| Sevastopol                      | 0.9                     | 37.8                                                        | 32.4                                                         | 85.7 |
| **Total**                       | **603.7**               | **10785.3**                                                 | **9490.9**                                                   | **88** |

*Source: developed by the author based on data [6;7].

The research indicates the need to improve the regulatory framework for the balanced use and restoration of forest lands, due to the appropriate system of both legal and organizational economic measures that would ensure environmental, resource-saving and reproductive nature.

From the point of view of the legal regime, forests have a limited operational significance and are subject to state registration and protection. Relations related to the use of the forest fund are regulated by the Land and Forest Codes and other acts of legislation of Ukraine. Land legislation defines the general provisions that relate to the regulation of the use and protection of forestry lands, and forest reflects the specifics of the regulation of these relations (Fig. 4).
One of the main features of the legal regime of forest lands is the multifunctional use of forests, which allows the simultaneous use of forests by different people for different needs, for example, temporary use of forests for harvesting secondary forest materials, secondary forest uses and...
other needs is carried out without land acquisition. forests, a permanent forest user on the basis of a special permit (Part 6 of Article 18 of the Forest Code of Ukraine) [5]. Significant features of management in the relationship of use, protection and reproduction of forest lands. Some management functions coexist or are absorbed by similar functions related to forests [10]. Planning of forest land use is carried out primarily in the form of forest management, which, in particular, provides for "drafting of the organization and development of forestry and author's supervision over their implementation" (paragraph 13 of Article 46 of the Forest Code of Ukraine) [5].

In accordance with Part 1 of Art. 5 of the Forest Code of Ukraine, forestry lands consist of forest and non-forest lands.

In case of change of purpose of forest land plots there is an obligation to compensate for losses of forestry production. At the same time, a simplified procedure for the transfer of forest land to non-forest land for purposes related to forestry (apparently, the law assumes that the preparation of a new land management project is not required) [5]. When transferring to non-forest lands, the issue of felling and use of wood is resolved. An obligation may be established to preserve forest plantations and take care of them even in the case of transfer of forest lands to non-forest lands (Part 2 of Article 58 of the Forest Code of Ukraine) (Fig. 4).

**Conclusions.** From the above we can conclude the current state of forest lands, which revealed the following strengths that become real in the implementation and conduct of the assessment: assessment of the existing state of forest lands; identification of risks and negative trends and phenomena in forest use; accounting of forestry lands and improvement of forest cadaster; planning and implementation of measures for the balanced use of forestry lands; increasing the efficiency of integrated forest management. The main factors of the theoretical study can be identified in relation to the effective use of forest lands as a spatial basis and source of productivity of forest ecosystems and the causes of these problems: 1) preservation of forest lands and change of purpose of forest lands, 2) encouraging the transformation of other elements of the landscape into forest lands and increasing the area of forested lands. The solution to these two problems lies in the plane of decision-making on land use, establishing a socially optimal purpose of land, compliance with land legislation, promoting reforestation and afforestation; 3) stimulating the preservation and increase of productivity of forest lands, which requires the use of levers of influence on land and forest users; 4) irrational use of forestry lands, which leads to loss of potential benefits of the landowner.

**REFERENCES**

1. *Drebot, O.I.* (2012). Institutionalization of the forest sector of the economy in the context of sustainable development of Ukraine. Kyiv DIA – 336.
2. *Furdychko, O.I., Drebot, O.I., Bobko, A.M.* (2017). Forest and forest ecosystems as part of forestry lands. Bulletin of Agricultural Science. 10. 54–58.
3. *Antonenko, I.Ya., Golub, O.A., Koval, Ya.V.* (2013). "Methodological approaches to comprehensive economic assessment of forest resources." Complex economic assessment of natural resources: [monograph]. Kyiv. – 300 p.
4. *Koval, Ya.V.* (2006). Forest problems in the context of transformation of Ukraine's economy. Economics of nature management and environmental protection. Kyiv, 14–21.
5. Forest Code of Ukraine. Subsoil Code of Ukraine. Water Code of Ukraine. Air Code of Ukraine. (2011): Odyssey. – 232.
6. Statistical Yearbook of Ukraine for 2017. Kyiv: Engineering, 900.
7. Official site of the State Agency of Forest Resources. URL: http://www.dklg.kmu.gov.ua/forest/control/uk
8. *Semchik, V.I.*, (Ed.) (2007). Land Code of Ukraine: Scientific and practical commentary. Kyiv– 896.
9. *Mauser, V.M., Gordienko, M.I., Brovko, F.M. etc.* (2009). Theoretical and technological bases of forest reproduction on the basis of ecologically oriented forestry. State Forestry Committee. Forest Information Research and Information Center. Kyiv. NULES Publishing Center. – 62.
10. People's legal portal "Jurisconsult". Art. 57. Use of forestry lands. URL: https://legalexpert.in.ua/komkodeks/zku/86-zku/3033-57.html