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ESTIMATION OF THE POSSIBILITIES OF MARKET-ECOLOGICAL TRANSFORMATION OF THE INSTITUTIONAL ENVIRONMENT FOR FOREST SECTOR OF ECONOMICS

Досліджено можливості інституціоналізації ринку соціально-екологічних послуг лісу шляхом реалізації стратегії еволюційного розвитку існуючого інституціонального середовища лісового господарства. Визначено напрями трансформації інститутів в нові еколого-економічні умови, які полягають у правовому охопленні фінансових потоків, що формуються в ході капіталізації соціально-екологічних користностей лісу.

Ключові слова: *інститути лісового сектору, формальні інститути, неформальні інститути, інституціональне середовище, еколого-правові аспекти.*

1. Introduction

The formation of the market for social and ecological forest services is a significant step in the development of the economic space of forestry, which provides for the capitalization of the social and ecological resource of the forest, taking into account natural advantages and limitations.

The processes of functioning of the commodity market, including the market of social and ecological forest services in a modern civilized form, can only take place in the conditions of the existence and active functioning of the regulatory apparatus for interaction of market entities, which, for the most part, is formed by the institutions of such economic system. The practice of institutionalizing new economic systems shows that the basis for designing and organizing the institutions of the new economic system is the existing institutional environment of the economic space, a certain development of which is the new economic system. It is quite obvious that the prospects for institutionalizing the market of social and ecological services of the forest are largely determined by the ability of market-ecological development of existing institutions of the forest sector of the economy of Ukraine. A large number of scientific research and analytical developments on the analysis and effectiveness evaluation of the functioning of existing institutions of forestry are known. At the same time, according to the author, there is not enough research of such regulatory base regarding the possibilities of its market-ecological transformation according to service of activities of the specific subjects, new for the forestry of Ukraine, the ecological and economic system, the market of social and ecological services of the forest. Such situation determines the urgency and motivates research on the possibilities of transforming existing forestry regulators into specific conditions for the functioning of the market for social and ecological forest services.

2. The object of research and its technological audit

Formation and effective functioning of the market of social and ecological services of the forest, as an ecological

and economic system, is possible only under the condition of an appropriate regulatory framework, represent certain formal rules (formal institutions) and informal norms (informal institutions) for the behavior of social and economic market participants. The most justified way of forming such regulatory framework (institutionalization of the market) is the evolutionary development of the existing institutional environment of the forest sector of the Ukrainian economy. Therefore, the object of research is the existing institutional environment of forestry and the possibilities of its market-ecological transformation in the conditions of the ecological and economic system. To determine the prospects for the institutionalization of the market for social and ecological forest services through the evolutionary development of existing institutions is only possible by analyzing and evaluating the market-ecological aspects of the main legislative and legal acts that today form the institutional environment of the forest sector of the economy. A clear understanding of the market-ecological orientation of the current legal field of forest management will make it possible to determine the possibilities and directions of its development in servicing the new ecological and economic system.

3. The aim and objectives of research

The aim of research is estimation of the market-ecological aspects of the institutional environment of the forestry sector of the economy and determination of the opportunities and directions for its transformation in the conditions of the functioning of the market for social and ecological forest services.

Achieving the aim of research is possible when solving the following tasks:

1. Determination of a complex of legislative and normative acts that form the institutional environment of the forest sector of the economy.
2. Grouping of legislative and normative documents on the directions of legal effect.
3. Analysis and assessment of the market-ecological orientation of the main legislative and regulatory acts.

4. Identification of opportunities and directions of their development for servicing the establishment and functioning of a new ecological and economic system.

4. Research of existing solutions of the problem

In well-known studies [1] on the need and conditions of institutional changes, it is determined that institutional changes or institutional development is an objective process of adapting the regulators of the economic system to the new conditions of its functioning. The effectiveness of the processes of such institutional transformation is determined by the fact that such transformation must pass within the limits of permissible possibilities into a set of rules, norms and compulsions that are formed by the existing institutional environment. That is, the author sees the solution of the problem of the transformation of institutions to the new economic conditions in the development of the existing institutional environment, taking into account the limitations.

There is an opinion [2] on institutional reform that determines that the formation of a new economic system can be considered completed only when the institutional foundations of the new economic system are formed and the institutional inertness of the institutional system is set, which, in most cases, harmonizes formal rules and informal norms, become stable and strengthened in behavioral models. That is, the author considers acceptable the possibilities of institutional development the correspondence of formal changes to informal norms, and also evolves with the society development.

In studies [3] it is determined that the design of the institutionalization of the new economic system is possible only with a detailed analysis of the problems accompanying the functioning of existing institutions in the new economic conditions and motivate, act as motivators, institutional development. That is, institutional changes are defined as an objective process, the essence of which is to choose the most effective institutions and withdraw from the institutional market inefficient, which is defined as the theory of institutional competition.

The theory of the development of the institutions of the economic system as a factor of institutional competition is supported by other authors [4]. He believes that following the logic of economic rationalism, the institutional organization absorbs only those norms that cause the individual to act so as to ensure the balance of marginal utilities and marginal costs.

According to [5], changes in institutions as a system are affected by changes in the properties of the objects it serves. It is justified that the system and the environment as a collection of objects that it serves closely interact on the verge of inputs (resources) and outputs (the final product).

In the formation of the market for social and ecological forest services, as a new ecological and economic object for institutional servicing of the existing system of forestry institutions, there are quite obvious changes in input flows – social and ecological, non-material resource, and output flows – a product in the form of a social and ecological service.

In any case, institutional development should be seen as a long process of interaction between formal and informal norms: the initial impetus from the introduction of a new formal institution causes dramatic changes in informal norms, and changes in informal norms, in turn,

affect the structure of the formal institution. The state plays a decisive role in the process of transformation of institutions. It should act not only as a legislator, but also as a guarantor of observance of laws [6].

According to research [7], in order for all markets to operate efficiently and fairly, there is a need for special institutions that provide support services, such as general audits, certification and the like. Interested parties can adapt some institutions that already function in other spheres of public life, but it is clear that it will be necessary to create institutions specifically for the markets.

According to the scientists [8], the dynamism and effectiveness of institutional reforms, to a large extent, depends on how well the points of contact between existing institutions and the features of the service object that have necessitated these institutional reforms are determined.

In studies [9] it is determined that the analysis and assessment of the existing institutional environment is the starting point for the design of institutions of ecological and economic systems in the forestry sector of the Ukrainian economy that provides for the exclusion from the practice of production and consumption patterns and does not promote the concept of sustainable development.

It is argued that the establishment of a reliable institute will ensure a combination of state, collective and individual interests in order to achieve the strategic objectives of the development of the forestry sector of the economy and create favorable conditions for attracting additional investments to implement strategic plans, and preserving the code core [10].

To a large extent, the problem of institutional design is solved by implementing the strategy of market-ecological transformation of existing forestry institutions, the development of which is the new ecological and economic system – the market of social and ecological forest services. Prospects for such strategic choice are determined by the degree of compliance and preparedness of the existing institutional environment of the forestry industry, based on a regulatory and legal framework, to effective institutional maintenance of the new economic entity. The assessment of market-ecological aspects of the main regulations that serve the forestry will allow to determine the approaches to designing the system of institutional provision of the market for social and ecological forest services. Minimizing the risks, saving material and financial resources provides an evolutionary approach to the institutionalization of the new economic system, when the institutions of the new economic system are formed as the development of existing institutions that divert the economic space. But the implementation of such approach is possible under certain institutional conditions, determined by the ability of the regulatory framework to respond to new institutional challenges.

The main directions and priorities for the development of the forestry sector (program institutes for development) are determined by the State Program «Forests of Ukraine» for 2010–2015. Of course, the outdated document does not affect the relevance of its environmental focus. It was the implementation of the Program that allowed to increase the forest area by almost 0.5 thousand hectares, which increased the level of the forest cover of Ukraine from 15.7 % to 16.17 %. The Program declares the direction of sustainable forestry development aimed at strengthening the ecological and social functions of forests. At the same time, it is necessary to determine that the financing of the Completion

Program, and already in 2015 negative trends were observed, namely: the volume of forest reproduction in 2011 exceeded the area of continuous felling by 1.6 times, and in 2015 only by 1.1 times; the area of forest reproduction in new territories in 2011 amounted to 22.4 thousand hectares, and in 2015 – 2.4 thousand hectares. This determines the need to adopt a new forest development program, which should take into account international experience of capitalizing the social and ecological functions of the forest.

The general strategy for development of the forestry sector for a long-term period is defined in the Concept of Forestry Reform and Development in Ukraine.

The need to develop the Concept is conditioned by the emergence of new economic relations in the state, the need to overcome the contradictions between ecological, economic and social goals, ensuring sustainable development of forestry by improving management efficiency, multipurpose use of forest lands, forest resources and useful properties of forests, and the need to increase the forest area to the optimal.

An important thesis of the concept on the formation of the market for social and ecological services of the forest is that it determines the priority ecological significance of the forests of Ukraine and their high share (up to 50 %) with a limited use regime, as well as the thesis on the efficient use of forest resources on market principles. A certain manifestation of the need to involve in the forestry social and ecological functions of the forest are the conceptual provisions on the inventory of forest belts and the determination of their ecological, social and indirect economic effect.

Political and legal institutions of the forestry industry are based on a number of legislative acts. The main legislative act, which regulates relations in the forest sector, is the Forest Code of Ukraine (as amended on May 23, 2017). It determines the existence of three forms of ownership of the forest – state (about 88 % of the forest fund), communal (about 11 % of the forest fund) and private (about 1 % of the forest fund), and establishes the equal rights of ownership of forest lands by citizens, territorial communities and the state. This determines the possibility of the existence of competition as the main category of market relations. Different forms of ownership of forests provide a balance of interests of different social groups, is an important prerequisite for sustainable forestry development. At the same time, it is important to determine the optimal correlation between different forms of ownership of the forest, which could correspond to certain historical and social and economic conditions for development of a particular stage in the development of the state. Significant negative for the introduction of market relations is the preservation of unified state control over the use of forest resources, even with the existence of various forms of ownership, covers not only the protection and conservation of forests, and the economic activities of forestry subjects. A certain problem of institutionalization of the market of social and ecological forest services, which, to date, has not been resolved at the legislative level, is a bureaucratic state forest management. The Forest Fund of Ukraine determines that the forest is in use by more than 50 ministries and departments. With such significant number of forest users, the implementation of a single forest policy in the state is complicated, and the corresponding legislative norm in the Forest Code becomes a formal legal act influenced by departmental characteristics. This can greatly complicate the

regulation of relations in the provision and consumption of social and ecological forest services, the fact that social and ecological benefits are generated by a forest complex that can have a bureaucratic structure. The provisions of the Code have a definite market-ecological orientation to the fact that the forest resources also include the useful properties of forests (the ability of forests to reduce the negative effects of natural phenomena, protect the soil from erosion, prevent pollution of the surrounding environment and clean it, help regulate water flow, and his aesthetic education, etc.), used to meet social needs.

Ecological orientation, which is important for the formation of institutions of the market of social and ecological services of forests, has the Law of Ukraine «On Environmental Protection» No. 1264-XII of June 25, 1991. It specifies in particular that the protection of the environment, the rational use of natural resources, ecological safety of human vital activity is an inalienable condition of sustainable economic and social development of Ukraine. The law declares the principle of the ecologization of material production on the basis of the complexity of decisions in matters of environmental protection, use and reproduction of renewable natural resources, and the widespread introduction of new technologies. It specifies that in order to take into account the quantitative, qualitative and other characteristics of natural resources, the volume, nature and mode of their use, state cadasters of natural resources are maintained. At the same time, the law lacks references to the need to maintain a cadaster of the social and ecological resource of forests. In the Law there are statements that make some problems for capitalization of natural resources, namely: by the legislation of Ukraine, citizens are guaranteed the right of general use of natural resources for satisfying vital needs (aesthetic, recreational, material, etc.) free of charge, without fixing these resources for individuals and the provision of appropriate permits, with the exception of restrictions provided for by the legislation of Ukraine. It should be understood that this does not apply to legal entities and individuals using the social and ecological services of forests to obtain additional profits.

A significant legislative space for the functioning of the forestry sector of Ukraine is formed by the Land Code of Ukraine (introduced by the Law of Ukraine No. 2768-III of October 25, 2001 (as amended on June 04, 2017). The law defines forest fund lands and legal regulation of the use of forest fund lands. Aspects of the Land Code have manifestations in the possibility of permanent or leased use of forest land by individuals or legal entities, while the Land Code does not recognize the right of temporary use of forest land that is specified by the Forest Code. The Land Code declares that the total use of the lands of the forest fund is free. The special use of these lands provided for permanent use for specialized state or communal forestry enterprises is paid.

Taking into account that the significant social and ecological potential is inherent in the natural reserve fund of Ukraine, the legal framework, which is formed by the Law of Ukraine «On the Natural Reserve Fund of Ukraine» No. 2457-XII of June 16, 1992 (as amended on March 10, 2017). The market prospects of the Law are: the possibility of nature reserves, which do not have a national status, take various forms of ownership, can control the objects of a nature reserve fund and acquire the status of a legal entity, which greatly simplifies the organization of activities for the

purpose. At the same time, the market gaps in the Law on the formation of the market for social and ecological forest services are the prohibition of all types of activities not related to direct destination and the complexity of procedures for obtaining permits for possible activities. Ecological manifestations of the Law are evident in the preservation of the social and ecological resource of forests and forest areas.

Regulatory functions for financing forestry (financial and economic institutions) are largely determined by the Budget Code of Ukraine. Its market orientation is determined by the fact that when forming the budget of the forestry sector, the priorities are the profitability of the forestry itself (payments for the use of forest resources), and not state subsidies. This implies the introduction of such financial and economic mechanism that will allow, along with normative state pricing, to widely apply market pricing methods: pricing based on competitive advantages, a timber exchange, auctions of forest lands. Considering the significant difficulties in price state regulation of social and ecological forest services, market methods are justified by pricing methods when providing such services. The ecological manifestation of the existing financial and economic institutions of forestry is that the state, as the owner of the forest, guarantees the fulfillment of its responsibilities with financial support for measures to preserve and strengthen the social and ecological functions of the forest. Certain environmental manifestations in the form of an environmental tax are observed in the Tax Code of Ukraine. Tax on emissions of harmful substances into the atmosphere, storage of hazardous waste, etc. increases the importance of social and ecological functions of the forest as possible regulators of such processes.

5. Methods of research

The study of market-ecological aspects of the institutional environment of the forest sector of the economy and the prospects for its transformation for servicing, establishing and operating a new ecological and economic system is carried out using the following methods:

- in the analysis of the institutional environment of forestry – grouping method according to the functional orientation of the main legislative and regulatory acts;
- in determining and assessing the market-ecological orientation of legislative and regulatory acts – institutional analysis method;
- in determining the prospects and directions for transforming the institutional environment into new environmental and economic conditions – forecasting method and comparison method.

6. Research results

As a research result, a set of legislative and normative acts defining the legal field of forest use and conducting their grouping in the spheres of legal coverage is defined. In the process of institutional analysis, the degree of market-ecological orientation of the existing institutional environment of forestry is determined. Foreign experience of institutional support of ecological and economic systems and the study of trends in the development of domestic institutions of the forest sector of the economy made it possible to forecast the directions of transformation of the institutional environment in the conditions of the market of social and ecological forest services. Research results are shown in Table 1.

Table 1

Prerequisites for market-ecological transformation of the institutional environment of the forest sector of the Ukrainian economy

Prerequisites for development	Market-ecological perspectives	Market-ecological gaps	Directions of market-ecological development
Institutions			
Program and development institutions	<ol style="list-style-type: none"> 1. Effective use of forest resources on a market basis. 2. Inventory of forest belts and determination of their social and ecological effect. 3. Strengthening the social and ecological functions of forests. 4. Increasing the level of forest cover. 5. The predominant ecological significance of the forests of Ukraine 	<ol style="list-style-type: none"> 1. Deterioration, completion of financing. 2. Does not imply the development of market relations when using the social and ecological resource of the forest 	<ol style="list-style-type: none"> 1. Adoption of a new Development Program. 2. Formation of institutional foundations of the market of social and ecological services of the forest
Political and legal institutions	<ol style="list-style-type: none"> 1. Identification of different forms of ownership of forests. 2. Possibility to lease forest plots. 3. The possibility of market competition. 4. The possibility of temporary use of forest areas. 5. Inclusion in the forest resources of the social and ecological properties of forests. 6. Ecologization of material production. 7. Rational use of natural resources. 8. Ensuring environmental safety of life. 9. The State of Natural Resources Inventories. 10. Legal definition of forest fund lands. 11. Permanent or leased use of forest lands by individuals and legal entities. 12. The general use of land in the forest fund is free of charge. 13. Special use of such lands provided for permanent use by specialized state or municipal forestry enterprises is paid. 14. The possibility of nature-protected territories that do not have a national status, take different forms of ownership. 15. Possibility of owners of objects of the nature reserve fund to acquire the status of a legal entity, which greatly simplifies the organization of activities for the purpose 	<ol style="list-style-type: none"> 1. The optimal ratio of different forms of ownership to forests isn't determined. 2. State control over economic activity of forestry subjects. 3. Bureaucratic State Forest Management. 4. Users have not identified the social and ecological benefits of forests that can receive such goods on a commercial basis. 5. Does not recognize the right of temporary use of forest fund lands, it is assumed by the Forest Code. 6. Prohibition of all activities not associated with the direct destination of the nature reserve fund. 7. The complexity of procedures for obtaining permits for activities at sites of the nature reserve fund 	<ol style="list-style-type: none"> 1. Democratization of the legal field of forest management. 2. Formation of a cadaster of social and ecological resources of forests. 3. Harmonization of the provisions of the Forestry and Land Codes in terms of forms of use of forest land. 4. Capitalization of social and ecological benefits of forests of nature-protected areas
Financial and economic institutions	<ol style="list-style-type: none"> 1. When forming the budget of the forestry sector, the priorities are the profitability of the forestry itself (payments for the use of forest resources), and not state subsidies. 2. Together with the normative state pricing, the methods of market pricing. 3. Tax on hazardous effects of production. 4. Financial support for activities to preserve and strengthen the social and ecological functions of forests. 5. Importance of forests to ensure ecological safety of the environment 	–	<ol style="list-style-type: none"> 1. Separate budget items to support market reforms in the forest sector of the Ukrainian economy. 2. Tax holidays for forestry enterprises, introduce social and ecological entrepreneurship

The analysis of research results in the table allows to conclude that, given a certain market-ecological orientation of the existing legal field of the forest sector of the economy, there are no references in the main legislative acts to the prospects for capitalizing the social and ecological functions of the forest. That is, there are prerequisites for the formation of a system of institutional provision of the market for social and ecological forest services through the evolutionary development of existing forestry institutions, which development of these institutions in servicing the processes of supply and consumption of a specific commodity – the social and ecological services of the forest.

7. SWOT analysis of research results

Strengths. A certain market-ecological orientation of the existing institutional environment of forestry

Weaknesses. Lack of experience in institutionalizing the ecological and economic system in the forest sector of the Ukrainian economy.

Opportunities. Formation of institutional provision system of the market for social and ecological forest services through the evolutionary development of existing forestry institutions, which allows maintaining inter-branch relations and achieving significant savings in financial and material resources.

Threats. Possible resistance of business entities to introduce regulations on paid consumption of social and ecological forest usefulness in the legal field of forestry.

8. Conclusions

As a result of grouping of the main legislative documents forming the institutional environment of forestry, in terms of their functional orientation and their institutional analysis, the author of the article came to the following conclusions:

1. Existing institutions of forestry development are largely outdated and do not define such development direction as the capitalization of the social and ecological benefits of the forest, requires updating the program documents and setting priorities for the integrated use of the natural forest resource.

2. The main political and legal acts of the institutional environment of the forestry sector of the economy have a certain market-ecological orientation, allows to determine the strategy of institutionalization of the market of social and ecological forest services as an evolutionary development of the existing institutional environment of forestry.

3. Financial and economic institutions envisage financing activities for the preservation of an environmentally safe environment through a number of environmental taxes, the possible development of such institutions can be the legal coverage of financial flows that can be formed during the capitalization of the social and ecological benefits of the forest.

4. The lack of domestic experience and the institutionalization of ecological and economic systems in forestry require significant efforts to study foreign experience and create conditions for the import of certain institutions and their adaptation to the conditions of forestry in Ukraine.

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ОЦЕНКА ВОЗМОЖНОСТЕЙ РЫНОЧНО-ЭКОЛОГИЧЕСКОЙ ТРАНСФОРМАЦИИ ИНСТИТУЦИОНАЛЬНОЙ СРЕДЫ ЛЕСНОГО СЕКТОРА ЭКОНОМИКИ

Исследованы возможности институционализации рынка социально-экологических услуг леса путем реализации стратегии эволюционного развития существующей институциональной среды лесного хозяйства. Определены направления трансформации институтов в новые эколого-экономические условия, которые заключаются в правовом охвате финансовых потоков, формирующихся в ходе капитализации социально-экологических полезностей леса.

Ключевые слова: институты лесного сектора, формальные институты, неформальные институты, институциональная среда, эколого-правовые аспекты.

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