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## **Economic incentives as a tool for regulation ecologization of agricultural land**

**Scientific problem.** The priority of current agricultural policies must be a gradual transition of domestic economy, including the agricultural sphere and ecologically safe way of development, manufacture competitive ecological agricultural products, environmental protection, sustainable use of natural resources, including land. In this connection become very important economic stimulation for ecologization of agricultural land, which is an important tool in ensuring the sustainable development of agricultural sphere. Primarily, ecologization land owning should be aimed at preventing further degradation of soils due to the use of certain measures or their complex exercise which should be supported by the state through the introduction of economic incentives.

Of particular relevance this issue has gained in terms of transformation of the land properties that accompanied by the creation of different sized land uses, organizational and legal forms of ownership by agricultural enterprises of market type, which reinforces the need to provide sustainable land use, conservation, restoration and improvement of soil fertility and land protection.

**Analysis of recent researches and publications.** A significant contribution to the development of theoretical and methodological foundations for the formation of economic mechanism to stimulate land owners and land users for sustainable use and protection of land in Ukraine was made by: V. Borisova [1], P. Borshevskyy [2], O. Hnatkovych [3], O. Dorosh [4], O. Korchynska [5], S. Korchynska [6], L. Kupinets [7], P. Kulynych [8], P. Sabluk [9], N. Solovyanenko [6], A. Sohnych [10],

V. Trehobchuk [11], M. Fedorov [6] and others. However, despite the strong theoretical and methodological developments translation into practice the regulation of land relations, economic incentives still failed. The reasons that impede the introduction of effective economic mechanism to stimulate ecologization of agricultural land use include imperfect institutional framework in the sphere of land relations.

In particular, today not alleged the procedure for economic incentives for rational land use and protection, improvement of soil fertility, which need to develop the laws of „Ukraine On Land Protection”, „On state control over land use and protection”, On amendments to some legislative acts as for conservation of soil fertility and paragraph 18.3.4. National Action Plan for 2011 to implement the program of economic reforms for 2010-2014 was: „Prosperous Society, Competitive Economy, Effective State”. According to the Strategy of the agricultural sector for the period 2020, approved by the Cabinet of Ministers of Ukraine of 17 October 2013 p. № 806 stimulating rational and efficient use of agricultural land and increasing ecologization of agricultural land was recognized as one of the priority areas of achieving strategic objectives in the sphere of land relations.

**The objective of the article** – to reveal the theoretical and methodological approaches to economic mechanism of landowners stimulation of and land users as an important tool for regulating ecologization of agricultural land.

**Statement of the main results of the study.** An economic incentive for ecologization of agricultural land is directly related to the protection and use of land conservation, restoration and improvement of soil fertility and environmental protection in general. It is not a new institution in the field of state regulation of land

relations, as the need for its implementation is provided by the Land Code of Ukraine as far as back in 2001. Thus, Article 205 of the Land Code of Ukraine stipulates the content of economic incentives for rational use and protection of land and secured system of economic incentives for increased interest of land owners and land users on the rational use of land, improving their environmental performance, preventing the destructive impact of economic activity on the quantitative and qualitative state of farmland. By law these incentives include:

1. tax and credit incentives to individuals and legal entities that are carried out at its own expense measures envisaged by national and regional programs of land use and protection;

2. allocation of the state budget or local budget for citizens and legal entities to restore the previous state of land that was violated and it isn't their guilt;

3. exemption from payment for land that are under agricultural development or improvement of their condition according to state and regional programs;

4. compensation from the budget reduction of landowners income and land users due to temporary degraded and unproductive lands that have become so and it isn't their guilt.

Here we should point out the discrepancies in instruments of economic incentives that secured the Land Code of Ukraine and the Law of Ukraine „On Land Protection”. In particular, the Act as no such incentive allocation of the state budget or local citizens and legal entities to restore the previous state land disturbed not their fault. However, the Law of the ways incentives that are not reflected in the Land Code of Ukraine, in particular, does not apply to the use of accelerated depreciation of fixed assets land security and environmental protection. In this connection it is necessary to make the appropriate changes to current land legislation to eliminate these inconsistencies. At the same time in our opinion economic incentive measures should be divided into two groups: 1) measures to protect land from destructive natural and anthropogenic influences; 2) measures to eliminate adverse natural and anthropogenic effects on quality and environmental condition of land.

Under economic incentives landowners and land users should understand the mechanism of

compensation to owners and land users the cost of work that was performed by their own funds to prevent negative environmental displays regarding agricultural land. Also improving their environmental condition and protection, reproduction and improvement of soil fertility, those are in accordance with national, regional and local socio-economic development of the agricultural sector, sustainable development of rural areas in terms of land protection and so on. In aspect of economic substance studied stimulation process is to align actions by subjects of managing to balance their interests with the interests of society and ensuring conflict-free interaction between man and nature.

In order to ensure integrity of the economic mechanism greening of agricultural land defined its principles are criteria, tools, funding and methods of stimulation are defined (figure 1).

The principles of economic stimulation mechanism include:

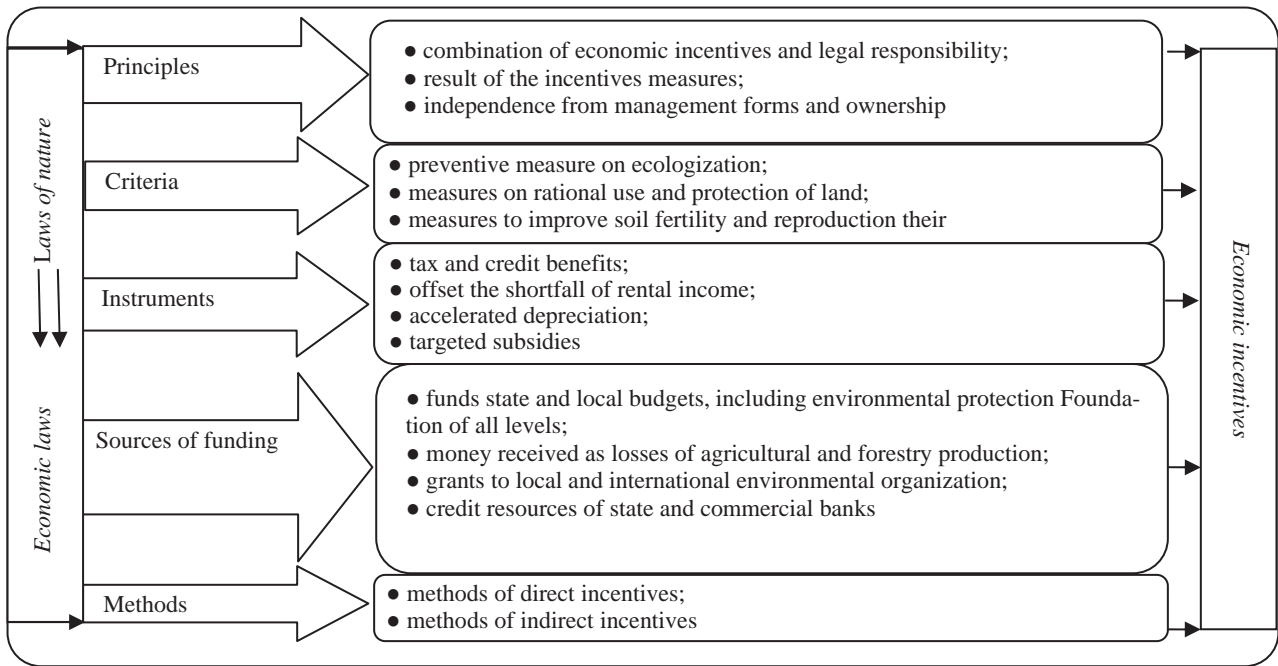
1. the principle of combining economic incentive and legal liability;

2. the principle of stimulation the results of the measures;

3. the independence of management forms and ownership.

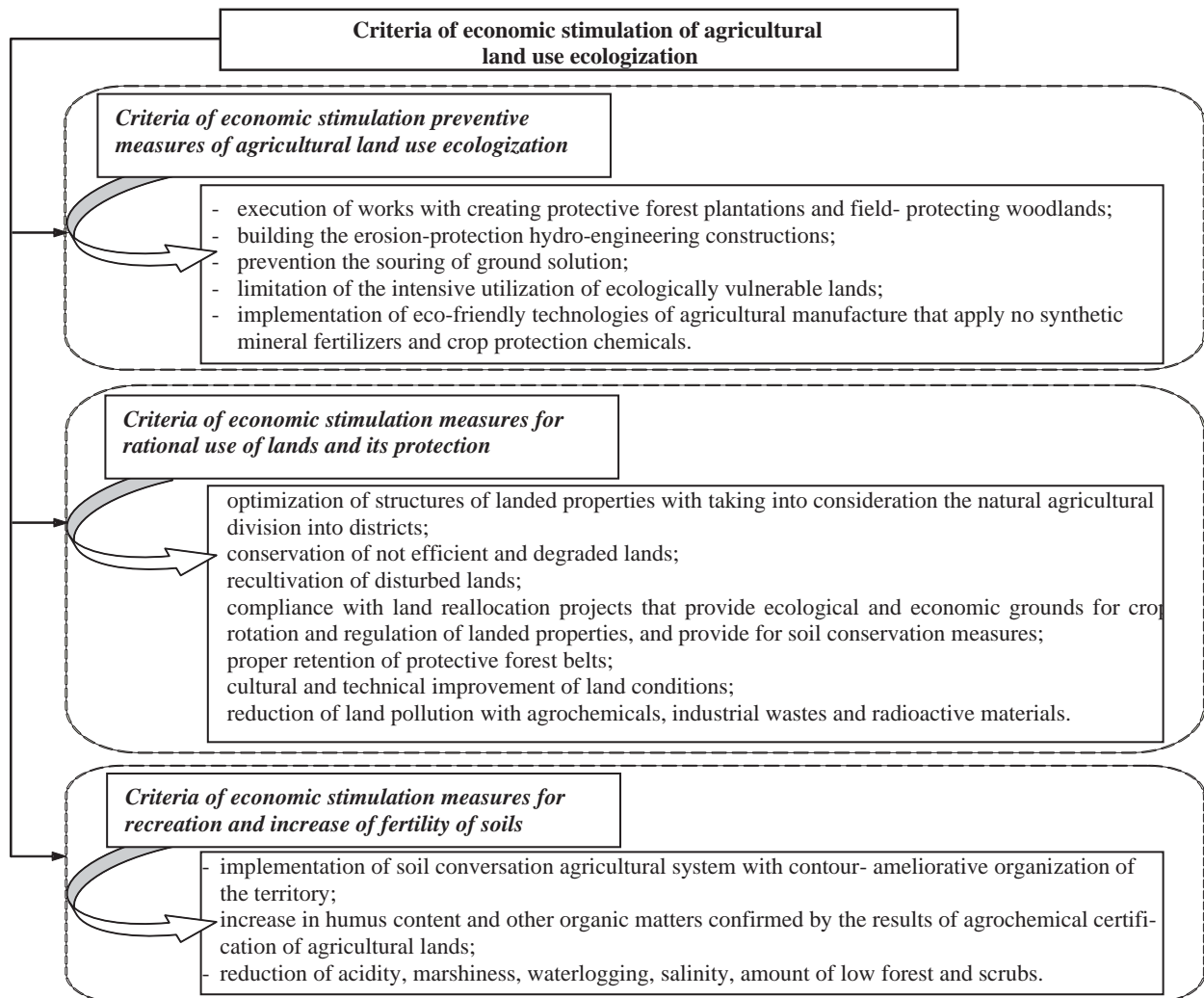
The importance at processing of economic incentives for greening of agricultural land tenure owned by the definition of the necessary criteria for stimulation. On the basis research these criteria were grouped in three blocks: preventive measures; measures for rational use of land protection; measures for restoration and improvement of soil fertility (figure 2).

The criteria of economic stimulation preventive measures in the field of agricultural land use ecologization include: the execution of works with creating protective forest plantations and field-protecting woodlands; the prevention the souring of ground solution by systematic work performance with liming of acid soils, especially in the conditions of radioactive contamination; building the erosion-protection hydroengineering constructions; the limitation of the intensive utilization of ecologically vulnerable lands; the implementation of eco-friendly technologies of agricultural manufacture that apply no synthetic mineral fertilizers and crop protection chemicals.



**Figure 1. Economic incentives ecologization of agricultural land**

Source: Formed by the author.



**Figure 2. Criteria of economic stimulation of agricultural land use ecologization**

Source: Formed by the author.

To the criteria of economic stimulation measures for rational use of lands and its protection conventionally can be referred: the optimization of structures of landed properties on the basis of the natural agricultural division into districts; the optimization of agricultural areas and decrease of their devastation; the conservation of not efficient and degraded lands; the recultivation of disturbed lands; the compliance with the land reallocation projects that provide ecological and economic grounds for crop rotation and regulation of landed properties and provide for soil conservation measures; proper retention of protective forest belts, seasonable repair of erosion- protection constructions and tree thinning in forest belts; reduction of land pollution with agrochemicals, industrial wastes, radioactive materials that is confirmed by the results of agrochemical certification of agricultural lands.

The criteria of economic stimulation of landowners and land users for reproduction and increase of fertility of soil are: the implementation of soil conservation agricultural system with contour-ameliorative organization of the territory; the increase in humus content and other organic matter confirmed by the results of agrochemical inspection of agricultural lands; reduction of acidity, marshiness, water logging, salinity, amount of low forest and scrubs.

For providing the efficiency of economic stimulation mechanism emerges the necessity of development the sources of its financing [14, 15]. By the results of conducted investigations it was determined that the financing sources can be provided by state and local budgets, including the funds of environmental protection of all levels; funds that are received on a basis of spending of agricultural and forestry production; grants from native and international ecological organizations; credit resources of state and commercial banks.

The mechanism of economic stimulation of agricultural land use ecologization include methods of direct and indirect economic stimulation of landholders and land users for land and soil conservation measures. Among the methods of direct stimulation, first and foremost, are state subsidies, given on non-repayable basis and compensatory payments for short-received part of rental income in a result

of implementation of not efficient and degraded lands; compensation of the cost of seeds and planting stock, spent on the grassing and afforestation during the conservation of lands; financing of development of regional and local programs aimed at ecologization of agricultural land use. No less important influence on the efficiency of agricultural land use ecologization have methods of direct stimulation such as the establishment of preferential tax regime for landholders and land users, who implement the land and soil conservation measures spending their own funds; exemption the investments from tax that directed at the building the erosion-protection hydro-engineering constructions; implementation of preferential credit system for purchasing the special equipment for soil conservation and building the erosion-protection objects, including the use of leasing as the starting point; the application of expeditious amortization of basic funds of land conservation and environment-oriented purposes.

Economic methods of agricultural land use regulation provide for the regulation of economic conditions that would initiate land users to achieve better results in their activities [16, 17]. The indispensable precondition of the economic stimulation should be the amendment of all fertility coefficients or their stabilization, stated in the agrochemical certificate of land area and accordingly total ecological and agrochemical estimation in scores at the moment of obtaining the land in the possession or use, or previous agrochemical inspection. Economic stimulation for rational use of lands and its protection is directed at increasing the interest of land users in preserving the land resources and their protection from excessive anthropogenic impact.

Thereby, the researchers from the National Research Center, the Institute of Agricultural Economics developed the mechanism of economic stimulation for land conservation and its rational use that is grounded on the basis of normative monetary value of lands and nonnative document of ecological and agrochemical certification of agricultural fields and land areas approved by Ukrainian State Company „Ukragrokhim” from 24 January 1995 [6, 13]. For the basis charge for measuring the amount of economic stimulation was taken the mone-

tary valuation of one hectare of land area or field and maintenance or increase of coefficients of ecological and agrochemical land estimation in scores. For evaluating the value of economic stimulation for increasing the numerical score of lands was elaborated the differentiation scale of stimulation percentage in the midpoint of each quarter, and the amount of stimulation was proposed to be charged as a cumulative sum.

The recommendations also include methodical approaches for economic stimulation measures for soil protection from wind and water erosion, territorial organization of land use, cultural and technical improvement of land conditions, conservation and increase of fertility of lands, land protection from industrial wastes and radioactive materials, temporary conservation of erosion arable lands, forrest-ameliorative, hydrotechnical, meadow-ameliorative and agrotechnical measures.

In current conditions of financial and economic crisis when there is a considerable deficit in state and local funds, it is hard to provide financing of land protection and soil conservation measures at the expense of budgetary funds. Thereby, extremely actual becomes the implementation of stimulation methods that require no direct budgetary payments and imposition of preferential taxation in particular.

The land taxation can be divided into three groups: 1) full or partial immunity from discharge of land taxation. In this case, the exemption from tax payments can be applied as for individual subjects – tax payers and for separate types of land properties; 2) taxation relief; 3) agricultural taxation relief.

The determination of direction that will be assumed as a basis, depends on what the system of preferential taxation is aimed at each particular stage of implementation of land and soil conservation measures. It is appropriate to impose different types of taxation for the purpose of enhancement of innovative and investment activities of landholders and land users in the field of land conservation performance. The preferential taxation can be imposed as on individuals as on legal entities. The subjects of the preferential taxation can be landholders and land users who are land tax payers and who implement on their own account the measures

aimed at the increase of fertility of soil, land conservation and its rational use.

In case of exploitation of lands by their holders and users, including leasers, on the methods that result in deterioration of qualitative conditions of soils one should impose sanctions. Depending on the violation sanctions can be imposed in the form of fines and damage compensation. The sanctions should be imposed by local government authorities and state ecological inspections.

Conclusions. Thus, there are different instruments of economic stimulation of ecologization of agricultural land use, in particular: allocation of funds from state and local budgets for land restoration, damaged not due to the fault of landholders and land users; temporal or partial relief of agricultural taxation; partial compensation for reduction in income as a result of temporal conservation of not efficient and degraded lands, and lands polluted by technological activities of people; preferential credit accommodation; categorical grants.

Generally, the aim of promoting land conservation, maintenance, reproduction and increase of soil fertility can be accomplished by application of stimulative mechanism of ecologization that should provide as administrative as economic methods. At the same time, the experience indicates that economic and environmental protection methods, first and foremost, should be preservative in their nature and in the first place should be aimed at prevention of emergence and growth of degradation processes that, unfortunately, nowadays do not exist. The implementation of economic stimulation of landholders and land users for rational use and land conservation will promote the increase of effectiveness of agricultural land use ecologization, rational exploitation of natural resources in the process of manufacturing, the melioration of qualitative conditions of soils and environment.

Thus, the stimulation provides the realization and concordance of economic interests, allows to form the effective mechanism of ecologization of agricultural land use, to eliminate actual contradictions among ecological, economic and social interests. It should be noted that the mechanism of economic stimulation is one of the ways of their concordance. By its

characteristics this mechanism of economic stimulation presents the unity of two opposite instruments – encouragement and liability. In the investigated aspect their interconnection and interdependence are stipulated by the nature of the very process of land exploitation. So, on the one hand, there is the indispensability for land conservation and other ecological systems, and also the necessity in their recon-

struction that provides for implementation of wide range of regulative instruments and the institute of management responsibility. On the other hand, it is preferable to implement measures aimed at the prevention of processes of exhaustion and pollution of land resources where the most efficient will be the promotion of such institute as the encouragement.

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