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## COMPREHENSIVE LAND MANAGEMENT — A GUARANTEE OF SUSTAINABLE NATURE USING

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*Development trends of reformation and regulations of land relations in Ukraine are studied. The necessity of modernized integrated State land management realization as a compulsory measure for State Regulatory Policy implementation in the sphere of land relations and environmental management is outlined. It is proved that integrated State land management is the only real tool for transparent and harmonious development of the territory. With the help of this approach problematic aspects could be corrected that have been missed during the process of land privatization.*

**Key words:** *land management, land information system, market economy, land reformation, natural resources.*

We know that development of each specific state and its territory depends on many factors in general. The basis of life-sustaining activities are available land and other natural resources. That is why the condition and the level of peoples' vital success depends on these factors, especially on the condition of protection and sustainable use of natural resources. Each civilized state when conducting land and agrarian reforms according to the national interests, outlines the goals and ways of transformations considering their perspective. At the same time, all the reforms and privatization process are accompanied by appropriate practices of land management that conducted by the relevant institutions.

Possessing 60,4 million ha of land within the borders of Ukraine, which is in the truest sense of the word «tuffed» with useful natural

resources, especially valuable soils, Ukrainians just jet have not felt real ownership of its main national wealth and use of it.

Such a condition it is wise to consider regular because in Ukraine so-called «land reform» that have been carried out over more than two decades continues to be actual and considered to be incompleting. Its consequences were not predictable because integrated State land management as the main instrument of forecasting, planning and implementation of design decisions — was not fully engaged.

Under these conditions, having not forming the real agricultural tenure ownership and land use for family type the optimal substantiation (size, form and content), dozens of super large agricultural holdings with a land bank of 20 to 800 thousands of ha of fertile land have appeared in Ukraine.

As a consequence, hard-working farmers predominantly lost their jobs, rural population become poorer and a number of villages is being declined and disappeared from the map of Ukraine. The degradation of many rural territories and ecosystems increase as a whole. At that soil constitution and problem of environmental safety of food products and its quality for human health remain at the low level.

For example, in Lithuania, land privatization in rural areas is executed by formation of land parcels in compliance with the land management plans for the land reform. Following the procedure prescribed by legal acts the requests for restitution of land filed by applicants are registered (including enclosed documents), the land parcels are formed and approved during the meeting of applicants. After the land management plans for the land reform are approved, the cadastral data are prepared that are necessary for the land sale-purchase transactions or for the adoption of decisions regarding the restoration of ownership rights to land, also other documents are prepared necessary for legal registration of land parcels in the Real Property Register (Aleknavičius P., et al., 2005).

It is pertinent to agree with the opinion (Martyn, Evsyukov, 2009) about the fact that main consequence of the conducted in Ukraine land reform its only socialization of the land — its redistribution among the population. The authors consider: «In conducting reform the importance of land as a resource of productive forces of territorial development and the basic components of the environment was rejected, that under present conditions became the reason of occurrence a number of economic and environmental crises in land use, the complexity of the solution of which is complicated by property relations».

Now in Ukraine (especially by the former government) under the pretext of agrarian and land reform completion the moratorium on alienation of agricultural lands and the introduction of land market is reinforced.

Substantiating the proposed land market, the authors (Ibatullin Sh. Et al., 2012) indicate: «One of the most important objectives of the present stage of land relations and land reform development in Ukraine is the legislative and normative providing and complete formation of land market without which it is hardly possible to receive positive changes towards sustainable use and protection of land resources».

However it is necessary to consider that the continued public policy on land resources management requires an integrated approach for economic and environmental interests balancing.

Professor (Aleknavičius P., 2013) rightly emphasizes: «When administrating land use, it is necessary to know how to combine public and private interests, and to plan foreseen measures assessing specific properties of the land, as a component of economic structure and natural environment. Agricultural and forest land used for agricultural activity — is a unique natural resource, characterized by fertile soil layer. This is the main means of production, accumulated capital, built up, and is required to be kept by the previous, current and future generations of people. This land, if properly used, does not lose its value. Land use long-term goal — to improve the economic performance of land, preserve agricultural land, forests and other natural resources. To achieve this it is necessary to prepare planning documents reconciling natural systems, and provide economic and legal basis of these documents and the cost to regulate the growth of production».

By agreeing with this statement, there is a need for the development of integrated and systematic measures that would allow indicate the most appropriate ways to fulfillment of the desired land reform in Ukraine. Therefore, the purpose of this article is to study trends and outline the basic mechanisms to ensure transparent and harmonious development of the territories, and at the same time to correct mistakes and omissions in the process of privatization of land in Ukraine.

The methodological basis of research methods is used at the empirical and theoretical levels, namely: inductive and deductive (in the study, analyze, organize and process information); conceptualize problems and clarify certain concepts (the study of the problems and their causes); historical (the study of trends and land reform, and in the use of natural resources); monographic, abstract and logic (the development of scientific principles and mechanisms of the theoretical foundations of the modern vision of the future use of land and its natural resources — the main national wealth of Ukraine); conceptualize (the study of problems and clarify some consequences of reform and of events); current hypotheses (in developing strategies and to determine the main priorities of the formation of national environmental-economic models in agricultural landscapes from the perspective of balancing different interests — as a paradigm of the ultimate goal achievements of land reform in Ukraine).

The object of research is the process and consequences of land reforms and the state of natural resources in Ukraine.

Subject of research — the theoretical and methodological foundations of finding the ways and mechanisms to balance environmental, eco-

conomic and other interests in the accomplishment of reforming land relations in Ukraine.

Manifested at the beginning of the 90s of last century, the process of initiated land reform in Ukraine turned out to be too thorny for its main participants and until now did not become predictable.

Research suggests that in order to prevent the formation of an independent law-governed state, anti-state forces and pro-communist majority, taking into account the large share of agricultural lands in Ukraine, it was invented and constitutionally implemented total collective ownership of land (from January 30, 1992) along with private and public property.

In February 1992 the Law of Ukraine «On the collective agricultural enterprise» was adopted from which determination of property share of each member of the communal agricultural enterprises was started. In March of that year Parliament of Ukraine assuming a new Land Code of Ukraine by the Resolution «On the acceleration of land reform and land privatization» obliged relevant authorities to provide land reform and introduce collective and private ownership.

In order to prevent effective farm enterprises formation on scientific basis, in Land Code of Ukraine it was determined that by the creation of farm enterprises it could be obtained only a maximum land (share) in life-size, which is calculated on all members of the communal agricultural enterprises and social sector workers of the village from collective property lands (agricultural lands). In such case, a farmer himself and members of his farm were obliged to leave the collective farm and had no right to work anywhere else. Among the population random interpretation of the adopted regulations were distributed, particularly about the ways and methods of land transformations.

Unfortunately, Ukrainian state development took place in conditions of economic and social crisis worsening. Most of the population of Ukraine did not feel the improvement of their financial position. Great hopes were relied on land reform. Some people connects these troubles with the President and Supreme Soviet of Ukraine activities.

It should be noted that one of the first normative acts of the new President of Ukraine was Decree «On Immediate Measures for Acceleration of Land Reform in the Sphere of Agricultural Production» of November 10, 1994, No. 666. In this Decree the question of land reform and nature management narrowed mainly to agrarian issues. Nevertheless real changes have not been occurred.

Implementing the next Presidential Decree «Regulations for Division into Shares of Land Transferred to Collective Ownership of Agricultural Enterprises and Organizations» of August 8, 1995 No. 720, even then a number of drawbacks of reforms was manifested. For example, the destruction of the so-called brigade and unpromising villages in central farm (village) focused the vast majority on the members of communal agricultural enterprises and total proportion of units of such members occupied almost the entire territory of other village councils (villages), lands of which this farm used. Not at all the issues of transferred land to collective ownership under household buildings and yards, reclamation systems was decided. The main inappropriateness was the fact that contrived (collective) property and the process of reform deprived other citizens of Ukraine to own rightfully and to dispose of their property as a fundamental national wealth.

Actually Decree on land sharing that are transferred to collective ownership had been issued only for the period to the Constitution of Ukraine adoption (1996), in which there is no collective ownership of land.

Because of the fragmentation and inconsistency, having not holded during during 1995–1999 desirable integrated scientifically grounded measures reformation of land relations reforming with simultaneous of socio-economic relations reforming, agriculture rapidly began to lose its position.

After the next election of the President of Ukraine new Decree «On Immediate Measures to accelerate the reforms in the agricultural sector» (December 3, 1999 No. 1529) was adopted, which was instructed to implement quickly organizational measures of reforming during December 1999 – April 2000 of collective farms based on private ownership on land and property. About integrated land management nothing has been mentioned. On this basis, seemingly, there were formed new types of economic structure of the market type, where it was recommended to perform as founders the guiding top (maximum 10 people).

During the process of reforms which are in progress in Ukraine, the requirements on maintenance and supporting of a number of positive attainments in science and agricultural production, as had been embodied at the years of the Soviet Ukraine remained beyond the field of vision.

Unfortunately, the necessary analysis and assessment, forecasting and planning, financial and long-term credit support, technical and technological modernization, as well as development and support of social sphere functioning, creation of new work stations along with employment

ensuring for able to work population — all these had not been executed and such the situation is indeed at present.

Contrary to common sense about 27 million ha were divided in Ukraine, including 18 million ha of highly fertile fields, nearly into seven million pieces of land (preferably on paper, because most of the fields were not delineated in life-size). Among such virtual plots were not only steep slopes, wetlands and environment-oriented lands, but also those that are subjected to the construction, mining operations etc.

According to the operative information obtained as a consequence of carried-out work by the Ministry of Agrarian Policy of Ukraine, the 96% of the fertile lands were divided by the end of 2005 into the shares of land, which is 26,8 million ha. In the course of such reforms, more than 16 thousand new agroformations were created based on 11,3 thousand collective farms. Among them: limited liability companies, joint stock companies, cooperatives, private and individual farms, and others, that began to use the land and property on the tenant right. In addition, there were about 43 thousand farms (created earlier) occupying 4,3 million ha for land use and more than 4 million individual peasant farms, land use of which comes to more than 6 million ha.

Thereafter the process of big business entering into the agricultural sector of economics has increased. By expert appraisal, despite the putting the moratorium in force in Ukraine since 2002 on buying and selling of agricultural land, there is over five million ha of appropriated fertile land by way of different shadow schemes, including by companies with foreign capital.

It is reasonably to consider such a situation as consistent phenomenon, because the transformation of land relations took place outside the scientifically grounded comprehensive and system land management process. The reform itself was not accompanied by a complex of works according to the law of national land management that is the only and main instrument for balancing of all interests, especially national ones. The same was true for many other problems. The high-precision digital mapping was not carried out, geographic information, land cadastre, land registration and other systems were not hold.

As a consequence, owing to lack of scientifically grounded vision of the prospects for development of specific territories and the Ukrainian State in a whole, the real mechanisms of economic and agricultural transformation were unavailable, and the civilized local government is nonexistent. The predicted production and creation of necessary conditions for valuable feeding of population remain to be unchanged problem.

The foodstuffs in Ukraine must be natural, organic and eco-friendly products.

In this case, the questions of economic of land relations and nature management are many-sided and complex considered, also in the legal, environmental and social lines.

As this takes place the development, approval and realization of non-departmental state regional and local projects on land management and nature use (essential for all partners to implementation) are due to be fulfilled. The issues of perspective and current development of all administrative territories must be settled, the general schemes and plans of development and building of each village and settlement must be made up in such a way as to suit the top requirements and actual problems on their realization (Kovaliv, 2013).

During the process of development of such land management projects the following procedures should be performed: urban and rural areas determination; carrying out of digital high-precision mapping of the territory, soil, geobotanical and other surveys; inventory, certification and zoning of lands; establishment of owners and users of available natural resources; development and confirmation projects for the development of specific territories of local councils, land ownership and land use, organization of the territory; formation of economic units, indivisible fields crop rotation etc.

Special attention is should be given to: revival of natural agrarian and forest landscapes, water supply and water regulation, the development of suburban areas and zones with special regime of land and natural resources using, and also protection of the ownership rights and using, including rent relations.

For this purpose it is advisable to supplement the Law of Ukraine «On Land Management», including a new Article No. 53 «Land management projects of land completion reform on privatized lands of agricultural enterprises».

These projects should be developed only in the process of variance using GIS technologies for a period of their full realization within specific territories of privatization and land sharing.

The main component in the process of land reform completing is the formation of sustainable and efficient agricultural land ownership and land use and minimally undivided tracts of land, including land plots that are changed by their target functional purpose.

According to the previous examinations, analysis and estimates in rural areas (Kovaliv, 2006) is expected to create and organize (as a variant):

- up to 5 thousands of specialized households of different forms of management (mainly with hired workers) within total area of about 10 million ha of high value and productive large arrays;

- more than 250 thousands of individual family peasant's (farmer) households (patrimonial, family estates, which are create preferably by young families without employees, mainly in terms of lifetime inheritable possession) with a total area of almost 10 million ha of small arrays of arable land and other surrounding lands;

- about 7 million ha will be renovated, forested, built-up, used for mining and other non-agricultural activities, etc;

- rest of suitable lands will be used by small individual peasant's and farm enterprises (without employees).

The activities of all such households should be based on highly moral and cultural values and focus on the production of environmentally friendly (organic) high-protein crop production and animal husbandry.

In order to ensure rights of real ownership in all agricultural landholdings and at the level of minimally ordered indivisible arrays, it is appropriate to implement legislatively transparent mechanisms of free alienation of such rights (next transactions) after five years after their successful functioning in a public sale.

In order to remedy the situation for the optimal natural agro-wood-landscapes to be formed without unmotivated breaking (parceling) of area, it is suggested to gauge and introduce promptly on legal grounds the mechanism whereby the first transactions and the change in the designated purposes for all the shared lots of agricultural purpose would be directly go through the government specialized institution agency (its branches). It is advisable at the same time to put owners (who has no need for lots or who is in need of money) the right to alienate (sell) his property exclusively at government's disposal, so far as all the land shares were turned over free from the government property.

## CONCLUSIONS

Reasoning from these investigations it may be concluded that all reforms in Ukraine were limited to a known «divide and possess». As a result, 27 million ha of fertile lands were divided among the peasants into nearly seven million pieces-shares.

In order to regulate land relations and harmonious territorial development, correcting the mistakes and omissions in the process of land privatization, we propose to develop and legisla-

tively approve the appropriate National Concept and Programs of land reforms accomplishment in Ukraine. These documents should include all land categories and all natural resources from the standpoint of economic, environmental, social and spiritual interests.

Main focus should be given on the development, confirmation and realization of extra departmental national, regional and local projects of land management that should be mandatory for execution by all parties. At the same time minimally indivisible arrays should be formed for their target functioning, including the consolidation process of separately used in life-size land plots.

In developing such projects, legal relations (that are acquired in an unnatural and irrational manner) between the owners of land shares should be reconciled. It is also necessary to solve questions of perspective and current development of all administrative territories considering and mutually coordinating general schemes and land-use plans of each village.

An important mechanism of operational accompaniment and control of the implementation of project stages should be the creation of open and transparent monitoring and automated information system.

Successful implementation of the proposed mechanisms it is possible only with the introduction of new approaches to environmental economics. In particular, we propose to define the amounts of profit (income) receiving that will make a distinction between interests of all participants of environmental management and will be based on a new rental form.

We consider that implementation of the proposed measures will contribute to the mistakes correction of previous reformations and real growth of budgets at all levels, especially family budget. Also it will provide the protection and sustainable use of environment and national food security in the country.

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## УДОСКОНАЛЕННЯ ОБЛІКУ ЗЕМЕЛЬ ПІД ПОЛЕЗАХИСНИМИ ЛІСОВИМИ НАСАДЖЕННЯМИ В КАДАСТРОВО-РЕЄСТРАЦІЙНІЙ СИСТЕМІ

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*Проаналізовано сучасні підходи до кількісного та якісного обліку земель під полезахисними лісовими насадженнями в кадастрово-реєстраційній системі та запропоновано шляхи його удосконалення. Обґрунтовано доцільність ведення обліку кількості та якості земель під полезахисними лісовими насадженнями на геоінформаційному принципі із застосуванням 3D моделей.*

**Ключові слова:** *облік земель, полезахисні лісові насадження, облік кількості земель, облік якості земель, кадастрово-реєстраційна система.*

Удосконалення системи обліку земельних ділянок та методів їх еколого-економічного оцінювання є одним із напрямів стратегії сталого розвитку України [9].

Землі під полезахисними лісовими насадженнями (далі ПЛН) відіграють важливу роль у забезпеченні екологобезпечного сільськогосподарського землекористування, функціонування екологічної мережі, формуванні високих врожаїв сільськогосподарських культур, вони є невід'ємною складовою протиерозійних комплексів в агролісомеліоративній системі в цілому. Проте державний облік цих земель характеризується відсутністю достовірної, актуальної та своєчасної інформації про реальний стан земель під ПЛН, їхня вартість унемож-

ливає прийняття ефективних управлінських рішень [3, 11].

Необхідність удосконалення обліку кількості та якості земель під ПЛН зумовлена: застарілістю підходів сучасної облікової системи збору даних та оновлення статистичної інформації поряд з обмеженим застосуванням ГІС і даних ДЗЗ при обліку, неузгодженістю зі Стандартною статистичною класифікацією ЄЕК ООН облікових категорій (підкатегорій) земель [3]; обмеженістю в часі (до 01.01.2015 р.) облікових форм статистичної звітності з кількісного обліку земель (№ 6-зем, ба-зем, бб-зем, 2-зем) відповідно до статті 28-1 Закону України «Про Державний земельний кадастр» [6]; відсутністю інформації у кадастровому обліку як земель, так і лісів (форми № 1, 2, 3, 4, 5, 35), яка відображає меліоративний стан, полезахисну ефективність земель під ПЛН, оскільки якіс-

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