

## ECOLOGICAL PERSPECTIVES IN THE CONCEPTION OF UKRAINIAN AGRARIAN SECTOR'S SUSTAINABLE DEVELOPMENT REALIZATION

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### **Abstract:**

*In the article ecological problems of modern Ukrainian ecological sector are analysed, the main factors of the most important for agrarian sector ecological-institutional determinators are considered. The components of ecological pressure in Ukrainian agrarian management system and ecological recreation perspectives are proved. New approaches to the culture of ecological management are proposed. Ecological perspectives in the conception of Ukrainian agrarian sector's sustainable development are pointed out.*

**Key words:** sustainable development, the conception of sustainable development, agroholding, ecological recreation, ecological pressure.

**JEL classification:** O13

### **SETTING OF THE PROBLEM**

Ukrainian agrarian economical sector plays one of the key roles in our country's development. It is stipulated by the fact that this sector ensures food security, delivers raw materials to other economic sectors, guarantees rural area's development and employment, increases country's export potential. Ukrainian agrarian sector is the only kind of economical activity, demonstrating increase both in the conditions of financial crisis of 2008-2009 and difficulties of 2014-2015. At the same time, present Ukrainian perspectives of agrarian sector's development will be greatly predetermined by determinators' coordination of its stability. Especially actual become theoretical grounds and practical development of ecological perspectives in the realisation of Ukrainian agrarian sector's development.

### **ANALYSIS OF THE LATEST INVESTIGATIONS AND PUBLICATIONS**

Both summits, conferences and documents of international organisations and works of a group of Ukrainian scientists, such as V. Heyets, Z. Herasymchuk, B. Danylyshyn, S. Dorohuntsov, M. Sgurows'kyi, L. Mel'nyk, V. Trehobchuk, V. Shevchuk are dedicated to the problem of sustainable development. As to ecological perspectives in the realisation of agrarian sector's conception of sustainable development, its enterprises, here we consider a number of weighty works by O. Borodina, Yu. Lupenko, M. Malik, O. Onyshchenko, T. Ostashko, O. Popova, I. Prokopa, P. Sabluk, O. Shpykulyak, O. Shubravs'ka, V. Yurchyshyn and many others.

### **SELECTION OF UNSOLVED PARTS OF GENERAL PROBLEM**

The globality of the phenomenon under analysis, ambiguity of its social comprehension, the necessity to take it into consideration while designing sectoral development's strategic programs and forming institutional providing stipulate the expediency of further scientific investigations in the direction of prerequisite's emphasizing and giving grounds to the perspectives of harmonized realisation of the Ukrainian agrarian sector's sustainable development determinators. From this point of view the theme and goals of the investigation is considered to be actual.

## **SETTING OF THE TASK**

We try to define ecological perspectives in realisation of Ukrainian agrarian sector's sustainable development conception; work out the approaches of economic regulation's elaboration in realisation of Ukrainian economic agrarian sector's ecologization principles.

## **INVESTIGATION LAY OUT**

Agrarian sector has been a decisive factor of social development. Modern condition of Ukrainian agrarian sector shows inbalance of its development when the advantage is given to economic component while ecological and social determinators are secondary. On the one hand, the processes of production concentration on the level of agroholdings promote it. On the other hand, small agrarian producers mostly don't have opportunities to keep ecological requirements and social standards. To add, the problem seems to be global rather than concerning agrarian enterprises or national economy. Its solution is possible on the foundations of sustainable development conception. Sustainable development should have balance and combination of such important determinators as economic (sustaining certain profitability levels), ecological (conservation of nature and its recreational ability), social (providing employees' certain living standards nowadays and in future), institutional (sustainable development institutional frames based on adequate institutional providing), and cooperation of the factors above on the basis of systematic approach and synergetic components.

Practical realisation of sustainable development conception and its effectiveness on the country level, and Ukrainian agricultural enterprises in particular, requires innovative approaches combined with famous known "classical" methods to manage domestic agrarian household and appropriate regulative providing mechanisms. We can stress on such ecological problems of modern Ukrainian agrarian sector [2]:

- flora and fauna's genetic fund poorness, caused by: introduction of monocultures; urbanization; construction of great water reservoirs;
- soil fertility decrease and degradation through; striving for the high crop capacity; violation of agrotechnical rules; usage of heavy agricultural machines; inadequate melioration;
- industrial soil pollution;
- extermination and degradation of forests and reduction of their biovariability;
- excessive use of chemicals in agriculture – (40% are assimilated by the plants, causing the increase of nitrates in food stuffs later, and 30% causing water pollution);
- water resources degradation;
- reserve funds development problems;
- recreational resources development problems.

Despite some positive changes reflecting general approaches to Ukrainian sustainable development global strategy adaptation (concerning institutional providing, - the aims of millenium development are worked out [2], some legal and normative-legal acts are adopted

and amended) – practical implementation of approved Ukrainian national ecological policy conception to 2020 [3] and basic foundations of sustainable development are not effective so far. The causes of the above mentioned concern different aspects – general ecological, social, economic, institutional, organizational, informative, technical, technological and political as well. To our mind, the most important ecological institutional determinators for agrarian sector are:

- a great number of multiscale ecological pressures and challenges, both constant and changeable;
- transformational changes of agrarian management forms and conditions;
- some agricultural violations, and those of live-stock farming and crop-growing agricultural creation principles;
- the problems of working out assessment criteria of agrarian raw materials to standardized demands and certified qualitative parameters, ecological in particular;
- heterogeneous ecological decisions and low efficiency of ecological reforms on the level of separate regions and agrarian enterprises as managerial entities.

The components of ecological pressures in the system of domestic agrarian management and perspectives of ecological recreation are presented in Table 1.

**Table 1. The components of ecological pressure in the system of domestic agrarian management and perspectives of ecological recreation**

Condition and directions of agroecological measures	
Theoretical grounds	Practical providing
<i>Condition and perspectives of agrarian management of nature</i>	
<ul style="list-style-type: none"> <li>- Agricultural ecological problems - man caused pollution and soil eruption;</li> <li>- the pollution of hydrosphere as a result of irrational consumption of water in agriculture and pollution of ground/subterranean waters;</li> <li>- plant growing ecological pressures – monoculture planting, decrease of natural biovariability;</li> <li>- challenges in the process of cattle-breeding management as a result of cattle species disbalance, fodder basis chemical processing;</li> </ul>	<ul style="list-style-type: none"> <li>- soil protective agriculture, antieruption measures and soil fertility recreation;</li> <li>- rational consumption of water in irrigation process;</li> <li>- recreation of optimal ecological condition of ground and soil waters;</li> <li>- optimal agrolandscape structure;</li> <li>- effective combination of natural and agrarian ecosystems;</li> <li>- increase of cattlebreeding activity on the basis of selection – adapted cattle species; cattlebreeding culture increse;</li> </ul>

<i>Forms and methods of agrarian management</i>	
<ul style="list-style-type: none"> <li>- great farms – agroholdings with intensive agrarian management – agriculture, plant-growing, cattlebreeding;</li> <li>- farms (according to their size, quantity of workers);</li> <li>- households</li> </ul>	<ul style="list-style-type: none"> <li>- working out large scale ecological projects and nature protecting measures as to the challenges' level decrease on the basis of ecological management;</li> <li>- rational utilization of territorial natural resources potential;</li> <li>- the development of ecological services rendering alongside with basic kinds of activity</li> </ul>

With the purpose of practical realization of sustainable development it is necessary to use new approaches to the culture of nature utilization in Ukrainian agrarian sector on the basis of such priorities:

- only ecologically safe both for environment and consumers of the resources (reflecting modern European approaches in particular) is economically grounded;
- optimal usage of all interrelated resources – natural, man caused, managerial. informational in the system of agrarian management;
- efficient interrelation of agricultural ecological-economical and social determinators (expansion of the sphere of service rendering of necessary parametres for further progressive agrarian development founded on ecologically dynamic constants);
- implementation of new forms and methods of agrarian management, their effective combination with traditional ones (thus, development of ecologically perfect alternative agriculture should be combined with intensive management, plantgrowing in particular).

The above suggested approach defines the necessity to reform agrarian relations in Ukraine in the way of required ecological determinators. It's about the increase of national ecological doctrine workability in the system of agrarian management, providing and combining of ecological-economical reforms in the country on the level of agriculture, processing branches, industry, transport, trade, social activity into one common stream of ecological motivation and responsibility. Common ecological problems are those connected with technological pollution of the air, water resources, lithosphere, soils in particular, despite different causes and ways for dangerous contaminants getting into above mentioned natural environment.

Utilization of different resources in agrarian environment should be ecologically stipulated taking into consideration different factors of abiotic, biotic and anthropogenic origin. (Thus, natural-climatic conditions influence the conduct and productivity of agro-ecological systems and their components – agricultural sorts and agrolandscapes in general, grassy phytocenoses, forests etc.).

**Table 2. Perspective principles of nature management in agrarian environment**

<b>Optimal nature management</b>	<b>Non-optimal nature management</b>
<i>Use and reprocessing of natural resources</i>	
Highly effective agrarian management with the use of necessary quantity of resources	Characteristic features of different kinds of resources, natural in particular (biological, climatic, mineral etc.) deplete or change
<i>Use and protection of natural life standards</i>	
Great changes of natural resource potential don't take place. Natural objects or complexes efficiency is kept (increased in some cases)	Utilization of natural objects on the whole and their recreational, aesthetic functions in particular is getting worse.
<i>Changes of natural system ecological balance</i>	
Productivity of natural complexes – ecosystems of different origin and complexity level is maintained. It is the basis of natural balance recreation.	Bioecological system balance is disturbed, environment loses its ability to selfregulation – selfpurification, selfrecreation.

It should be considered while designing regional programs of agrarian sector sustainable development, taking into account climatic changes (warming effect) in particular. We consider social ecological culture to be very important in this context. It is

simultaneously the feature of ecological actions in society and the indicator of further sustainable development perspectives, the system of agrarian management in particular.

New approaches to the culture of natural utilization in agrarian environment – consumption with simultaneous recreation of natural-resource potential should be realized on the basis of optimality. The realisation of this principle in agrarian management should be correlated with the notion of ecological optimum as the most favourable conditions for vital functions of organisms in general or for separate processes (Table 2).

**Table 3. Regional-territorial principles use perspectives in the system of agrarian relations**

<b>Reginal principles of agrarian management</b>	<b>Territorial principles of agrarian management</b>
Adoption of common decisions and agroecological initiatives concerning regional eco-economical integral, progressive agricultural development as complex management subjects	Common projects, derected on agrieological regeneration and perspectives of separate territories and water areas on the account of motivational strengthening – economic, social, moral-psychological
Development of microregional entities – agrarian provisional clusters as geographically concentrated and managerially interrelated enterprizes, important for competition and economic increase in agrarian enterprise activities, those in depressive territories in particular	Use of cluster technologies will balance the development of rural territories, it will help to create new infrastructure in in rural region – increase of working places quantity, widening of main and additional services, in the form of ecologically pure management in particular, development of ‘green’ tourism etc.
Coordinated approaches to nature management on regional level, based on common ecological values with simultaneous accents on the peculiarities and territorial ecosystem functions	Common nature protective measures in the form of landscape optimization – natural and agrarian in common complexes with perfect structure, progressive development and aesthetics

To implement ecological initiatives concerning nature management and agroecological transformations it's necessary to take into consideration regional-territorial principles as a complex basis of modern domestic agrarian management from agroecological balance point of view. This mostly reflects the sustainable development strategy (Table 3).

## CONCLUSIONS

Stipulation of ecological parameters perspectives in providing national conception of national agrarian enterprises sustainable development covers theoretically defined and practically directed agroecological measures to improve nature management system, agrarian management forms and methods from ecological security point of view and gaining the level of ecological perfection. The above mentioned goals demand new managerial decisions as to their balance, attaining the state of optimal nature management – providing, use and recreation of resources in the system of domestic agrarian management.

Thus, on the basis of above mentioned principles and ecologically regulated mechanisms in the system of agrarian management effective usage of natural-resource potential is possible. Here it is necessary to involve both internal and external reserxes, increase of managearial decisions efficiency, motivation of domestic agrarian enterprises'

activity principles and results, allowing to form balanced parameters in multilevel realisation of the Ukrainian sustainable development sector conception.

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