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### PLANNING OF AGRICULTURAL LAND UTILIZATION

The theoretical and methodological foundations of agricultural land utilization planning were discovered in the article. The scientific works, which are dedicated to this term, were analyzed. Planning of agricultural land utilization must take into account the impact of external and internal components of the macro environment and features land resources. The main goals of state land policy were identified. Objective necessity of agro formations land management projects was defined. It is ascertained that during agricultural land utilization planning one should consider the influence of external and internal components of surrounding environment, peculiarities of land resources and their utilization on particular territory. To reach effectiveness in land utilization one should have objective information on the basis of reliable planning-cartographical materials.

The information model of land utilization should consider faithful data concerning determination of priority directions of activity provided rational land resources utilization and land resources conservation.

Targets of state policy in the sphere of land relations regulation should consider efforts in the economic, ecological and social spheres that are directed at land utilization and land conservation of high effectiveness. One revealed the principles of agricultural land utilization planning. One learned international experience of agricultural land utilization planning to increase effectiveness and efficiency of land policy on the basis of considered realities. Conceptual basis, which actions of land utilization and land conservation planning should be grounded on, is ascertained.

**Keywords:** land utilization planning, national policy of land relations, planning and mapping along, state of the external and internal components of the environment, the strategy of land utilization development, targets of state policy in the sphere of land relation regulation

# Лазарєва О.В. Планування сільськогосподарського землекористування

В статті розкрито теоретичні та методологічні основи організації планування сільськогосподарського землекористування. Проаналізовані праці дослідникі в стосовно визначення даного терміну. В становлено, що при плануванні сільськогосподарського землекористування потрібно враховувати вплив зовнішніх та внутрішніх компонентів макрооточення, безпосередньо властивості земельних ресурсів. Визначено головні цілі державної земельної політики. Визначена об'єктивна необхідність розробки проектів землеустрою агроформувань.

**Ключові слова:** планування землекористування, національна політика розвитку земельних відносин, планово-картографічний матеріал, зовнішні і внутрішні компоненти оточуючого середовища, стратегія раціонального землекористування, цілі державної політики в галузі регулювання земельних відносин.

# Лазарева Е.В. Планирование сельскохозяйственного землепользования

В статье раскрыты теоретические и методологические основы организации планирования сельскохозяйственного землепользования. Проанализированы труды научных работников по поводу определения данного термина. Установлено, что при планировании сельскохозяйственного землепользования нужно учитывать влияние внешних и внутренних компонентов макросреды, особенности земельных ресурсов. Определены главные цели государственной земельной политики. Определена объективная необходимость разработки проектов землепользования агроформирований.

**Ключевые слова:** планирование землепользования, национальная политика развития земельных отношений, планово-картографический материал, внешние и внутренние компоненты окружающей среды, стратегий рационального землепользования, цели государственной политики в сфере регулирования земельных отношений.

### Introduction

Ukraine is an independent almost 25 years, but our country has not solved the fundamental problems of the agricultural sector development strategy also the problem of efficient agricultural land utilization development has not resolved. Obviously, the real economic breakthrough is impossible without a proper strategy, expertise and resources, improvement of public institutions.

Without exaggeration we can say that Ukraine was defeated in the context of the formation and development of competitive agricultural land utilization that largely became a reason of the Ukrainian economy bankruptcy. That's why it is not accidentally that interest to the problems of land relations development is increasing, scientists and practitioners are focused on scientific and methodological support of this process.

### Analysis of recent research

The basic foundation of the national policy of land relations development is reflected in the works of such scholars as Babmindra D.I., Bagheera, M.S., [1] V. Gorlachuk [2], Dobryak D.S., A.S. Dorosh [3], Kazmir P.G., Martin A., Sabluk P.T., Sokhnych A.J., Stupen' M.G. [4], A. Tretiak [5], M.M. Fedorov, Hvesyk M.A., V.V. Yurchishin and others, that have made a significant contribution to the development and improvement of the methodological tools of rational ways of significantly improvement of the agricultural land utilization efficiency.

The theoretical basis of improvement of territorial agricultural land utilization planning contain in some scientific studies [6].

The questions of integrated approach to agricultural land utilization planning are the subjects of scientific field of O.P.Botezata [7]. At the same time, the methodology of rational land utilization based on forecasts, plans and prospects of ecological and economic development is debatable.

# Statement of research objectives

However, the exact idea about understanding the objectives and tasks of agricultural land utilization planning is not traced in the scientific literature. After all, the plans of agricultural land utilization in European countries are an integral part of sustainable territorial development and land utilization should be cost-effective, environmentally acceptable and ethical in the interest of not only the present but also for future generations [8].

### Results

The researcher O.S.Dorosh [3] proves that the system of land management actions covers forecasting, planning and implementation of land management activities. Scientist said that the main task of forecasting is the necessity to offer and predict different ways of agricultural land utilization planning and management of rational land utilization and protection of land. As pointed scientist forecasted achievements should serve as the main and guide base while elaborating national and regional programs of rational land utilization and protectionof land.

In addition, measures of agricultural land utilization planning should be generally available to all stake holders and foresee reduction of administrative pressure on business in the process of land utilization. [4] In addition, the planning of land resources, carried out by local authorities, should be aimed at increasing the efficiency of land resources utilization.

Planning and cartographic material should provide the obtain of information about the spatial position of objects, the irnatura land economic status, legal status of the land.

The famous scientist Gorlachuk V. argues[2] that planning and mapping along with other land cadaster information allows to make strategic and operational management of land resources. However the production of true planning and cartographic material requires the development of such a regulatory and technical framework that takes into account all requirements for modern cartographic materials intended for working the marketplace.

Efficient land utilization and protection of land requires reliable information about the quantitative composition of the land and their qualitative characteristics, information about land that is notused, or information about land that is used in efficiently.

The key point here is the information about inventory of land that is the starting point for the development of land management to play land utilization and zoning of land.

Planning agricultural land utilization, we must take into account scientific principles of strategic management, and also it is necessary to take into account the state ofthe external and and components of the environment [9].

The external components include:

1. State of the environmentin which land utilization is located and functions.

- 2. Study of competitors' position which will determinetendencies of market formation and their impact on the development of land utilization.
- 3. The process of public administration of land utilization which based on the methodology of economic, social, political progress of society.
- 4. The state of the market infrastructure (cadaster and registration centers, mortgage institutions, commodity exchanges and information centers, etc.) designed to ensure rational land utilization and protection of land.
- 5. Financial and credit policy aimed at sustainable economic regulation of land utilization.

The internal components of the environment include:

- 1. The process of land utilization which includes extensive way of farming.
- 2. Availability of means of production, which would allow using an existing production capacity with a maximum fullness.
- 3. Availability of own sources of funding that provides project development of territory organization.
- 4. The research and development aimedat developing of competitive land utilization.

A comprehensive consideration of these components will provide a coherent management system of land utilization.

In general, the strategy of land utilization development in volves building of information model [9], in which target sare considered as a set of characteristics with priority of activity directions (volume of agricultural production, social security manufacturers, product quality parameters, the greening process, land utilization, etc.).

At the some time, such policy of land utilization must match the selected land

markstaking into account the econditions of recovery and environmental protection, including land resources.

The development of schedule of the implementation accepted strategy is based on a functional-time basis. At the same time for a particular target corresponds land own erortenant and onperformance of objectives given a certain amount of time.

During the implementation of the strategy it is envisaged the allocation of resources and tasks according to their goals.

Monitoring of the strategy implementation is the control of execution the strategic goals and, if it is necessary,takes adequate measures to eliminate the negative processes in land utilization or adjustment strategy.

At the same timeaims and objectives of the development strategy of land utilization are the following: increase in production and on this basis the effective utilization of available production capacity, the production of organic foods, which involves the development of environmental and land protection measures, to insure a balanced balance of humusin the soil-based optimal system croprotation.

From the for egoing it follows that the strategy of land utilization development is a system of conceptual regulations about the definition priority directions of activity based on consideration of macrocomponents and internal environment of a particular land utilization, setting objectives and targets that stemming from the condition of rational land utilization and protection of land resources.

It should be noted that the land policy should take into account the efforts in economic and social spheres, as shown in figure 1.

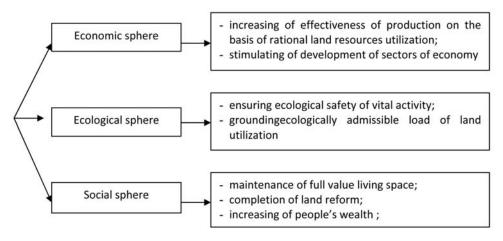


Figure 1. Targets of state policy in the sphere of land relation regulation

Enumerated targets should be directed at ensuring of highly efficient land utilization and conservation of environment provided support of targets on all the levels by bodies of executive power and land policy should stimulate rational land utilization and process of effective land resources management.

In the economic sphere one should increase the effectiveness of production on the basis of rational land resources utilization and stimulate development of economic sectors.

In the ecological sphere one should guarantee an ecological safety of the society's vital activity and ground ecologically admissible load of land utilization. Taking ecological targets into account ensure conservation of land utilization, production, labor and other resources systems.

In the social sphere necessity of maintenance of full value living space, completion of land reform and increasing of people's wealth are needed.

According to planned targets, main actions and tasks concerning application of effective land policy should be the following: grounding market priorities of land reform over the anticipated term, that needs plan development of expected state of organization of utilization of lands of different types and property categories; development of principles, methods and mechanisms of land utilization management taking into consideration the peculiarities of mixed economy and using levers of influence on economic agents in the sphere of ensuring rational land utilization and land conservation; development of national and regional programs of land utilization and land conservation, designing of schemes and projects of land-utilization system, that will favor ensuring of optimal structure of agrolandscapes, land ownership and land utilization; consolidation of efforts, aimed at development and realization of rational land utilization development strategy and according to it formation of national land policy priorities.

Realization of described land policy priorities should be considered as to scientific explanation of areas of governmental regulation of rational land utilization.

In addition, a system of planning agricultural land utilization should take suck ecological components as air environment, water, land and other natural resources into account. One need likewise realize the procedure of evaluation of ecological, social and economic results efficient on a systematic basis, that will also ensure rational

land resources utilization and land resources conservation.

Planning of agricultural land utilization, besides balancing of ecological, economic and social components, as it was mentioned above, should take features of land resources and peculiarities of their utilization on the particular area into account. Moreover reference points of land utilization planning are adherence of standards of environment protection and rational land utilization, maintenance of nature protection activity during land resources management, ensuring of proper system of land tenure education and afterwards scientifically grounded realization of actions regarding area planning, involving of the society into the process of land utilization planning.

The process of land utilization planning should be based on such principles as equity, access to information, continuity of the procedure of planning, solving the problems of planning, complex evaluation of ecological, social and economic state of areas.

During agricultural land utilization planning one should consider elements as preparatory stage, which means initiation of plan development; collection and analysis of data on the basis of veritable and reliable information; direct plan development considering key elements, which should be reached; approval of land utilization plan, which should include a detailed complex analysis considering strong and weak sides, threats and opportunities of the researched object (SWOT analysis), direct realization of land utilization plan including determination of economic, ecological and social priorities of the researched object and phenomena.

Also during agricultural land utilization planning one should consider optimization of land fund distribution between sectors of national economy and its effective utilization in each sector. Moreover, optimization of lands' structure should be realized pursuant to natural economic areas. Rational system of agriculture should include soil-protective cover and the system of fertilization and the system of crop rotation should consider development and realization of rational agriculture system. One should ensure the process of liming and gypsuming of soil, scientifically grounded technology of crop cultivation, accurate system of crop rotation.

Learning of international experiences of agricultural land utilization planning is likewise worthwhile.

For instance, in Germany legislative entrenched three-level system of land utilization planning and land conservation planning: national, federal, municipal. Moreover, federal lands have wide authorities concerning creating own systems of planning and regulation of land utilization. However, all the landowners and land users should develop a general land program and general plan of the development of their areas' land utilization.

In France the process of land utilization planning is the mechanism for redistribution of lands according to social interests, for defend of agricultural lands from irrational utilization and from unreasonable removal for industry and transport system needs. Planning actions in this country let develop recreation areas, protect lands from erosion and other negative consequences. Regulated for the distribution of land plans only after public disclosure are ratifies and are obligatory for execution. These plans are general (for country or region), district (for several communes) and municipal (for one commune).

In the UK during land sales, one cannot change their proper use without arrangement with the cities', districts', municipalities' councils of planning. The issue of area's development, land utilization planning, and improvement of landownership and land utilization are considered on the basis of Comprehensive and municipal plans.

In contrast to mentioned facts, one should mention that in Ukraine approved programs of land relations development almost don't exist on the levels of rural and settlement councils. This, the issues of increasing of the quality of proper land utilization and its proper control require creating of effective program purpose-oriented management methods, and land should be considered as entire territorial object, which determine development of country according to results of execution of industrial, scientific technical, ecological, social political functions. Moreover complex approach to agricultural land utilization planning should ensure economic and environmentally benign utilization, which will include all the ecological components.

One should emphasize that process of agricultural land utilization planning should consider the peculiarities of the process of agricultural production on the basis of created strategy. One should notice that strategy is the way of reaching results, formulated as intention, and the formulating of strategy is the process, during which

managers define mission, formulate the system of targets and likewise determine the components of the process of strategic management [9].

The strategy of agricultural land utilization should base on the principles of integration (combination of natural, economic and ecological factors); systemacy (which includes interconnections and relationships between all the components of surrounded environment); interconnection (all the components are closely connected); management (purpose-oriented management of the process of the land utilization development should be scientifically grounded); gradual execution (which includes realization of program basis of land relations development).

One should mention that realization of actions of land utilization planning and land conservation planning are one of the optimal solutions to increase the effectiveness and efficiency of land policy, which should be grounded on the following conceptual basis:

- Ensuring of social-political and social functions of land as the area of the country
- Involving lands to market turnover, considering social fairness during land redistribution
- Preferring ecological requirement concerning land conservation, ensuring of adherence of soil fertility and rational land utilization
- Abidance of current legislation in the sphere of land relations by landowners and land user.

Considering that the process of faithful agricultural land utilization planning should rely on projects of land-use system, which have such tasks as grounding, development and realization of organization and engineering actions concerning rational land utilization and land conservation [12].

The issue of effective land utilization and land conservation, reproduction of soil fertility needs constant attention of the bodies of state power and local government, because with the help of land-use system one can solve the problem of land relations regulation, creating territorial conditions for organization of land utilization. Organization of working position in agriculture is as important and necessary as in any industrial production. Only all-round and complete considering of terrain relief, quality of soil, conditions of moistening during allocation of the system of rotation of crops and its fields, necessary favorable conditions for utilization of technical means, labor resources, protection of soils from degradation processes and finally, increasing of land productivity are created.

Nevertheless, massive parceling of land plots with following granting of land ownership act of state and creating of agroformations on the basis of private land property caused breach of the systematic management of the land utilization areas' organization. Because of this processes of topsoil degradation intensified, which led to 0,6 ton/hectare losses of humus due to its mineralization and soil erosion [13, p. 6].

All the above-mentioned facts determine the necessity of realization of effective state policy, which is directed at formation of scientifically grounded system of landownership and land utilization with removal of defects in the organization of agroformation territories and creating of ecologically stable aglolandscapes and agroecological systems.

Solution of these issues is possible only provided realization of complex of land-use system actions, which are directed at improvement of land relations and rational organization of the territory of administrative-territorial formations and newly-created economic units. There is no doubt that overcoming negative process, which is spread in land utilizations, requires development of projects of agroformation land-use system, which, unfortunately, during all the period of land reform were not developed.

One agrees with researchers, that "... land-use system includes the system of actions, directed at realization of statements of land legislation concerning rational and effective utilization of areas, creating of proper conditions to satisfy people's needs and conservation of the environment at most [15, c. 31]".

The reason of non-development of land-use system projects in Ukraine is an absent of legislative support, which obliged one to create them, however, article 20 of the Ukrainian Law "About land-use system" regulates, that only realization of actions, envisaged with approved in a proper way documentation, are obliged [16]. That is why it is necessary to introduce additions into abovementioned law concerning obligatory of the development of land-use system projects, which will ensure the rationalization of lands, increase the investment attraction of land utilization in the countries etc.

One considers, that one of the reasons of ignoring of development of land-use system projects is short term lease of land plots, that does not let fully realize actions of rational land utilization and land conservation by land user on

leased land plot. Considering this it is reasonable to innovate the term of lease of less than period of rotation of crops on the national level to establish actions of area organization.

Considering that the issues of solving ecological problems are in the forefront, and economic one are in the background [1, c. 26], it is necessary to consider that land-use system projects represent the component of agroformation business-plans, which the issues of perspective development of sectors and organization of land utilization are reflected in.

Land-use system projects should consider the system of protective forest plantation, antierosivehydrotechnical buildings, conservation (alkalization, afforestation) of degradationed and low productive, polluted lands.

During development of land-use systems specialization of households, level of technical equipment, presence of labor resources and their allocation on the territory, zone peculiarities etc. are taken into account.

Thus, land-use system projects should become the obliged clause of conducting agricultural production, and likewise the ecological and economic basis for realization of actions of rational land utilization and land conservation, actions of dimensional organization of areas.

#### **Conclusions**

Grounding the essence of agricultural land utilization planning let create the following conclusions.

It is ascertained that during agricultural land utilization planning one should consider the influence of external and internal components of surrounding environment, peculiarities of land resources and their utilization on particular territory.

To reach effectiveness in land utilization one should have objective information on the basis of reliable planning-cartographical materials.

The information model of land utilization should consider faithful data concerning determination of priority directions of activity provided rational land resources utilization and land resources conservation.

Targets of state policy in the sphere of land relations regulation should consider efforts in the economic, ecological and social spheres that are directed at land utilization and land conservation of high effectiveness. One revealed the principles of agricultural land utilization planning. One learned international experience of agricultural

land utilization planning to increase effectiveness and efficiency of land policy on the basis of considered realities.

Conceptual basis, which actions of land utilization and land conservation planning should be grounded on, is ascertained.

One proved that land-use system projects, which are obliged clause for conducting production

on the land, play a great role in the agricultural land utilization planning.

At a later date, one considers that one should pay heed to researching of tools with help of which the process of agricultural land utilization planning is realized. This will become a powerful motive to reach effectiveness and efficiency of land policy.

### References

- 1. Bogira M.S. Povernennya do proektiv zemleustoyu shlyakh do podolannya problem zemelnoi reformy (Returns to land management projects a way to overcome the problems of land reform) in Zemlevporyadniy visnyk (Land management bulletin). 2007. № 6. P. 25-27.
- 2. Upravlinnya zemlekorystuvannyam (Land use management): Tutorial / V.V. Gorlachuk, O.M. Harkusha V.G. Vyun, V.V. Melnichenko, edited by V.V. Gorlachuk. Nikolaev: Publisher "Illion " 2006. 376 p.
- 3. Dorosh O. landshaftno-klasternyi pidhid do terytorialogo planuvannya rozvytku zemlekorystuvannya (Landscape-cluster approach to territorial planning of land use in Efectyvna economika (Efficient Economy) Mode of access: www.economy.nayka.com.ua/?op=1&z.ь.
- 4. Stupen M.G. Vykorystannya zemel naselenykh punktiv v suchasnyh umovakh (The use of land settlements in present conditions) in Visnyk Lvivskogo derzhavnogo agrarnogo universytetu (Lviv State Agrarian University bulletin. Economy Series APC). 2000. № 7 (2). P. 379-385.
- 5. Tretiak A.M. Upravlinnya zemelnymy resursamy (Land Management): Tutorial / A.M. Tretiak, O.S. Dorosh, edited by A.M. Tretiak. E: New Book, 2006. 360 p.
- 6. Bystryakov I.N. Metodologichni aspecty rozvytku zemelnykh vidnosyn v ramkakh terytorialnykh zemlegospodarskikh zemel (Land relations methodological aspects in the framework of territorial land management systems) in Proceedings of the International Conference, Kyiv, October 28, 2011 / Council of Productive Forces of Ukraine, National Academy of Sciences of Ukraine. P. 13-16.
- 7. Botezat A.P. Compleksnyi pidkhid u planuvanni vykorystannya zemelnykh resursiv (An integrated approach of land use planning) in Actualni problemy derzhavnogo upravlinnya (Public administration actual problems). № 1. 2010. P. 40-44.
- 8. Palyehova L. Zmist ta zavdannya planuvannya ekologichnogo stalogo rozvytku regionu (The environmental planning content and objectives for sustainable development in the region) in Sustainable development levers and mechanisms in the global economy globalization: Proceedings of the International Scientific Conference, 9-10 of December. 2010. Part II. P. 103-105.
- 9. Lazareva O.V. Strategiya rozvytku zemlekorystuvannya (The land use strategy) in Business Economics: modern theory and practice: Proceedings of the second intern. scientific-practical. conf., September 26-27, 2013 Odessa, Atlanta, 2013. P. 162-164.
- 10. Lazareva O.V. Strategichni napryamy derzhavnogo regulyuvannya zemlekorystuvannya (State regulation of land use strategic directions). Problems and perspectives of innovation development of economy of Ukraine [text]: Proceedings of intern. scientific-practical. conf., Jun 2-4. 2011, National Mining University, 2011. Vol.1. P. 175-176.
- 11. Tretiak A.M. Osnovni napryamy zmin ta udoskonalennya derzhavnoi zemelnoi polityky v Ukraini (Main areas of change and improvement of the state 's land policy in Ukraine) in Natsionalna bezpeka i oborona (National Security and Defense). 2009. № 3. P. 58-64.
- 12. Lazareva O.V. Obektyvna neobhidnist proektiv zemleustroyu agroformuvan (The objective necessity of land management projects agroformations) in Proceedings of the Ukrainian scientific conference "Land and architecture a way to harmonize the relationship between man and the landscape "- Kherson April 14, 2009 p. 35-37.
- 13. Tretiak A.M. Stan ta shlyakhy rozvytku zemelnykh vidnosyn i systemy zemlekorystuvannya v agrarnomu kompleksi Ukrainy (Status and the development of land relations and land tenure system in the agricultural sector of Ukraine) in Zemlevporyadnyi visnyk (Land management bulletin). 2008. № 6. P. 4-11.

- 14. Yevtushenko M.V. Doslidzhennya natsionalnogo ta svitovogo dosvidu ratsionalnogo zemlekorystuvannya (Study of national and international experience rational land use through planning areas) in Komunalne gospodarstvo mist (Municipal economy of cities). Issue 106. A series of "Economics." P. 329-333.
- 15. Kozmuk P.F. Problemy kadastrovogo zemleustroyu v mistakh v suchasnykh umovakh (Problems of land survey in urban areas in modern terms) in Zemlevporyadnyi visnyk (Land management bulletin). 1999. № 2. P. 31-33.
- 16. Pro zemleustriy (About land management) Law of Ukraine of 22.05.2003 № 858 -IV // Bulletin of the Supreme Soviet of Ukraine of 05.09.2003. 2003, № 36, article 282.
- 17. Melnik L.V. Strategichni zasady ratsionalnogo zemlecorystuvannya v agrarnykh formuvannyakh (Strategic principles of sustainable land use in agricultural units) in Kharkov National Technical University of Agriculture Economics Journal. Edition 126. Kharkov: KNTUA. 2012. P. 225-233.
- 18. Odaryuk O.O. Ecologo-pravove regulyuvannya ratsionalnogo vykorystannya zemelnykh resursiv (Environmental and law regulation of rational land use) in Journal of Poltava State Agrarian Academy. № 1. 2013. P. 168-170.
- 19. Pashkov I.A. Systemni osnovy stalogo zemlekorystuvannya v Ukraini (Systematic basis for sustainable land use in Ukraine) in Zaporizhzhya National University Journal. № 1 (4). 2009. P. 149-155.