

2.2. Legislative and regulatory preconditions for geo-management of land resources

The Ukrainian state is undergoing a period of social reforms, economic transformations, harmonization of legislative and regulatory base without which it is impossible to increase the competitiveness of agricultural products and food products, both within the state and on external markets. Such processes take place all over the world, and therefore economic relations are characterized by the development of globalization processes. Globalization, first of all, affects the institutional environment, laws, standards and the biggest changes are taking place in agrarian production, as land resources are an extremely important resource for food production and bioenergy. Globalization is the result of the development of world markets for a variety of goods, services, capital, labor, and information. Highly developed countries, using economic mechanisms, first of all, the WTO, expand the markets for the sale of their own products to re-engage participants, mostly exploiting their natural resources. Therefore, it is important to uphold national interests in all fields of activity and, above all, to a balanced market relations with respect to land resources. For a decent position in international markets and survival in the period of globalization, one must take into account the objective conditions of domination post industrial countries in the agrarian market, where there is a high efficiency of using 2 main resources: labor and land (i.e the value of labor productivity and landlord). The last indicator is still far behind the importance of the leaders of the agrarian market, but tends to increase. However, this increase is mainly due to agricultural enterprises, but farms considerably slow down the effect of using land resources. For example, indicators of rural development farms with project calculations on the basis of further intensification of agrarian production of Ukraine for the period 2015-2030 (Table 2.1).

Table 2.1

Dynamics of gross production in Ukraine per 100 hectares of agricultural land, thousand UAH. [57]

Year	Products farm				Crop Production				Livestock products			
	all categories of households	including:			all categories of households	including:			all categories of households	including:		
		agricultural enterprise	farms	farmstead		agricultural enterprise	farms	farmstead		agricultural enterprise	farms	farmstead
1990	351	260	-	1703	160	128	-	636	191	132	-	1067
1999	176	82	60	709	88	50	51	301	88	32	9	408
2005	249	157	98	409	145	96	89	224	104	61	9	185
2008	284	246	149	358	177	158	132	209	107	88	17	149
2009	279	241	126	360	168	142	109	211	111	98	17	149
2015	388	355	199	475	217	180	165	272	171	175	34	203
2020	513	511	301	573	283	243	243	338	230	268	58	235
2030	580	596	335	632	314	274	262	373	266	322	73	295

One of the factors of the internal and external environment of Ukraine is the improvement of modern land management and land use, making use of innovative and informational resources, which are usually combined into a single resource - web platforms. The effectiveness of land use management is determined by the degree of implementation of government functions through the following priority areas, which are given in (Table 2.2), taking into account author's development [57].

Qualitative and quantitative indicators of agricultural production depend on the degree of development of agro-industrial production [57].

At the present stage of development of agriculture in Ukraine, there should be implemented an integrated approach to agricultural production based on innovations taking into account economic, energy, logistical and environmental conditions, supplemented by information support and services of online web resources. For Ukraine it is typical to be "embraced" by the internal cardinal reforms, and the processes of globalization. Therefore, our agricultural

production requires in-depth informatization and introduction of innovations
земельные отношения such as geo-management in agrarian production.

Table 2.2.

Realization directions of innovative management functions in agro-
industrial production of Ukraine [57]

Regulation through	Directions of functional management
1	2
1. Modern management of agro-industrial production	<ol style="list-style-type: none"> 1. State policy, interest and regulation. 2. Information and legal support 3. Modern infrastructure 4. Web resources (geo-management)
2. Organization and planning of land management and land use	<ol style="list-style-type: none"> 1. The rates of land tax and the amount of land payments. 2. Land security measures. 3. Budget support for land users. 4. Standards for the justification of economic regulators of the land management system
3.3. Realization of land use	<ol style="list-style-type: none"> 1. Online mode informatization. 2. Monitoring in the resource and environmental aspects. 3. The balance of socio-economic interests of landowners and land users.
4. Economic stimulation of land users and landowners	<ol style="list-style-type: none"> 1. Responsibility for non-rational use of land under the conditions of state online monitoring. 2. Influence on economic, social interests of landowners and land users through economic stimulation. 3. Land payments (land tax, lease). 4. Penalties for violation of the law.
5. Monitoring of land conditions, land use efficiency	<ol style="list-style-type: none"> 1. Unified platform for the use, monitoring, consulting and taxation of landowners and land users. 2. Monitoring of land conditions and land use efficiency. 3. Regulation of measures for the rational use and protection of land.
6. Modern information provision on the basis of web resource	<ol style="list-style-type: none"> 1. Sufficient information for landowners and land users on one portal (platform).

The problems of legal support of land use and reforms in particular, are devoted to scientists who define the policy of regulating land relations. In the writings of A. Danilenko, M. Sidorenko, L. Novakovskii, D. Dobriak, A. Tretyak, I. Tomich, M. Hvesika and I. Mihasyuk, the current legal environment of land use are analyzed, indicated its shortcomings, identified the reserves of improvement, and also proposed ways to eliminate those manifestations of legal

nihilism that promote irrational and exhausting use of land-resource potential. In the field of land relations, more than 24 legislative acts were prepared, which basically provided the necessary legal and regulatory framework.

Land resources are an utmost important part of national wealth, and redistribution should not take place under the influence of exclusively market mechanism. Taking this into account, the state is forced to form relevant institutions that will implement its policy through the use of both direct and indirect levers of influence on land users. The question of the formation of a mobile system of state management of land resources was reflected in the writings of A. Danilenko, B. Danylyshyn, D., Dobryaka, L., Novakovskii, P. Sabluk, M. Sidorenko, V. Krivova, M. Stephen, J. Kulakovskii, I. Karakash, M. Shulga, G. Sharoy and I. Manko [57-64].

According to P. Sabluk, it will be impossible to eliminate the negative phenomena, if the function of controlling the sales of land is entrusted to State Committee for Land Resources, since it manages the state land ownership fund, and has the right to buy land and maintain the price policy of land, and it can make it a monopolist in the land market [57]. The land management system requires large-scale modernization and revision of certain basic principles in order to eliminate a number of negative phenomena associated with the redistribution of land ownership. One of the solutions to the crisis in the land management system is the development of land management.

The main sources of land legislation are:

The Constitution of Ukraine - the organic law of the country, which has the higher legal force, and its norms are legal norms of direct action. The fundamentally important norm of the Constitution is that the land is under the special attention of the state, and the use of land should not impair its natural fertility.

The Land Code of Ukraine, which is a general industry act, forms the basis of the land legislation. The Land Code of Ukraine regulates all land

relations regarding the use of reproduction and protection of all categories of land.

Legislative acts and legal documents of the system of land law and others [65-77].

Particularly important for the development of the land management system are developed norms of soil protection agriculture. They contain indicators of fertility losses, norms of all technological cycles, values of MAC substances, tools and mechanisms for preserving the quality of land. However, information technologies and web resources that can be combined with one term of geo-management using land resources are becoming relevant today and in the future.

At this stage of the land reform, which, with the reform of ownership to a large extent, becomes a land registry cadastre reform, it is necessary to consider the land as a limited, degradable natural resource, without rational use.

Land legislation requires a profoundly scientifically grounded rethinking, built on the state ecological policy of Ukraine and the strategic course of the state on state industrialization, export of finished products and state policy on preserving the quality of land and rural settlements. After all, the state policy of Ukraine can only be effective when it is formed from systems of branched perfect policies (ecological, agrarian, land, water, export, etc.).

In this regard, it will be fair if the formation of land legislation will be carried out in conjunction with the ecological code of Ukraine, the formation of the National Environmental Fund, the system of environmental audit and insurance, state environmental monitoring, interactive web sites for consulting services and promotion of products etc. This will help resolve the issue of the structure of land law in Ukraine, as the existing legislative provisions are scattered among many other legislative acts and normative documents, and most of them act as recommendatory. It should take into account the following main legal institutions: transfer and acquisition of land; control and monitoring; state

land cadastre; land management; responsibility for violation of land legislation; lease of land; seizure and redemption of land; ownership of land; land use rights; state regulation of land relations and management in the field of use and protection of land; legal regulation of land use; legal protection of land; compensation for losses to land owners and land users, etc.

The analysis of the structure of the existing land legislation made it possible to conclude that the lack of legislation in the field of responsibility for exhausting land use remains a serious problem, due in the first place to the lack of consistency and coherence in the legislative activity of the Supreme Council of Ukraine, a comprehensive approach to legislative regulation; lack of approbation of legislative development in the land sector; by agreeing to the provisions of the development with all levels of the land management system, as well as involving a wide range of land owners and land users in discussing these issues. A set of legal norms that represent the system, which includes the conceptual and organizational provisions of the land reform, legislative and regulatory acts, which have been created over a short period of time, require significant updating, substantive improvement and legal deepening.

The first step towards solving this range of tasks is the adoption of the Law "On Land Management", which defines the key principles, strategy, tactics, functions, methods, mechanisms, forms and structures of land resources management in Ukraine that can ensure the implementation of land policy of the state and the organization of environmentally sound land use. For the effective existence of a land management system, it is necessary to expand the base of legislative acts and regulatory documents.

An important step towards the effective development of the land management system is the process of large-scale inventorization of land of all categories by purpose, regardless of the ownership of land. The last have a fundamental importance, since in a market economy full information on their quantitative and qualitative status will solve the existing problems of economic

regulation of land relations. Especially actual is the introduction on new methodological basis- the repeated soil survey (the last survey took place almost 40 years ago). On the basis of land inventory and soil survey materials, it is necessary to develop for each landowner or land user a plan for the conservation and reproduction of soil fertility, which should be controlled by the state land monitoring system on the basis of new cartographic and analytical materials and with connection to web resources and platforms.

In the conditions of the active development of globalization processes that create conditions for the transnationalization of agrarian production and form the single world food market, the efforts of the national commodity producer should be concentrated on the foundation of competitiveness through ensuring the conditions for the sustainability of economic activity in the long-term. In this case, the development strategy is based on the formation of the most safe conditions of activity using synergistic action of resource supply of production. The use of land resources in the formation of an informational agrarian economy should be based on:

- informatization and open access to cartographic, agrochemical, legislative and normative documents on web-services;
- ensuring environmental safety through the formation of economic conditions, in which the proper conditions for the preservation and development of biocenoses are created;
- provision of economic conditions and appropriate legal framework;
- online access to cadastral and GIS maps, "e-calculators" of the efficiency of agrarian production;
- legislative introduction of a system of scientifically grounded crop rotation, which will promote, in the absence of funds for protection and restoration of land to increase productivity of land use. In this regard, it is necessary to provide strict reporting and statistical accounting to the state about

the development of crop rotation, legally oblige economic entities to conduct records "Field Story", passports, land plots, etc.;

- availability of algorithms for preservation of land fertility in the National Program of Land Conservation in Ukraine, etc.

Another methodological issue is the transition to a market economy, which has led to fundamental changes in the forms and methods of public administration in the use and protection of land resources and its content. During this time, economic methods of influence on entities of land legislation became widely used, as the provision of tax and credit benefits, allocation of state or local budget, exemption from payment for land compensation from the budget reduction in income landowners and land users as a result of temporary conservation degraded and unproductive lands, etc.

In the context of the widespread implementation of land reform, the role of land management in reformed agricultural enterprises is growing. In particular, the Law of Ukraine "On Land Management" provides:

- drawing up plans of land use of newly created agricultural enterprises within village councils;
- work on inventory of land, renewal of soil and geo-botanical surveys of the territory of reformed agricultural enterprises;
- Identification of agricultural lands that are used irrationally by owners and land users and taking measures for their redistribution;
- consolidation of the reserve fund lands and lands of the reserve in order to ensure their effective use by leasing on a competitive basis;
- afforestation and conservation of degraded and unproductive agricultural lands;
- development of land management projects with agroecological justification of the territory of newly created agricultural enterprises;
- land borders with the establishment of boundaries in territories with a special mode of use (nature conservation, recreation and conservation).

Conducting the state land cadastre is one of the functions of state administration in the field of land use and land protection. Its value lies in the fact that it is a state information resource. Purpose of the state land cadastre is to provide the necessary information to public authorities and local governments, interested enterprises, institutions and organizations and citizens to regulate land relations, rational use and protection of land, determine the size of the land tax and the value of lands in the framework of natural resources, control over the use and protection of land, economic and environmental justification of business plans and land management projects.

During the community reform, the land market, changes in mechanisms and tools in the socio-economic area, strategic planning and environmental auditing of the territories are gaining in weight. These include:

- the purpose and the grounds for the development of strategies, land use plans and business organization;
- descriptive-analytical part - detailed in the document with geographic, historical, demographic, economic, social characteristics, in which the analysis and evaluation of the actual state and prospects of the region's development are carried out;
- landscape features of the relief, soil characteristics and hydrology, and in general the natural-resource potential;
- features of socio-economic development in the dynamics over the past 10 years;
- ecological situation in the region;
- living standards of the population and its business activity.
- a description of competitive advantages and limitations of perspective development of the region (SWOT-analysis);
- strategic goals and phases of action - a set of strategic goals and phased action plans to achieve all strategic and operational objectives with a detailed description of the activities, sources of financing;

- mechanisms for implementation of the strategic plan [79].

It is in the process of preparation, implementation of such strategies that it is expedient to use informational web resources that include GIS technologies, cartographic materials, a set of geographic and economic maps and schemes; cadastral maps of all kinds; special schemes and drawings; bioindication or vegetation indices for territories and individual objects thereof.

The development of legislation in economically developed countries of the world is now being pursued through agro-ecological programs, for example, in the European Union. The system of stimulation and financial encouragement of the ecological management of farming by farmers in the European Union originates from the adoption in 1992 of the special concept "Council of Regulation 2078/92 on agricultural production methods compatible with the requirements of environmental protection and management in rural areas." According to this, a possibility arises of providing joint financial assistance to the European Union for programs that encourage the environmentally sound management of agriculture.

Reducing the use of pesticides in these countries is based mainly on technical solutions (for example, on the establishment of an integrated plant protection system). In addition, in some countries, the application of various economic instruments (for example, pesticide taxes) is practiced. In Denmark, for example, restrictions on the use of pesticides are stimulated by a 37% tax on pesticide retail prices. In particular, the upper level of payments that encourage farmers to participate voluntarily in agro-ecological schemes in accordance with the Concepts of Regulation 2078/92 and 746/92 is established on the basis of three criteria - costs; expected income; stimulant element (set at a level that does not exceed 20% of expected income). In this case, the Commission stipulates that the premium should be considered as compensation for the costs of providing the environmental public good, and not as a subsidy in its economic sense.

Within the limits of individual national and regional agro ecological programs, the size of the premium is fixed by the relevant agricultural ministries or local authorities. As a result, a rather complicated system of payment levels with significant variations both between and within the EU states. The EU member states are also members of the Organization for Economic Cooperation and Development (OECD), within which there is a special program on pesticides. Since 1994 p. The OECD has started implementing the Pesticide Risk Reduction project, which aims to provide support to countries that are members of this organization to reduce risks.

The project cover three groups of activities: the collection information on risk mitigation measures conducted in different countries; the organization of working groups to which the state and others interested in reducing pesticide risk groups can address their issues to; developing risk assessment methodologies that assist the government in policy-making to reduce risk. For example, in Sweden in 1998, within the framework of this project, a voluntary company for the safe use of pesticides was conducted by farmers, as well as a program for determining the indices for assessing the level of pesticide risk reduction.

Agroecological programs and strategy implemented in Ukraine to reduce the environmental risk from the use of agrochemicals, on the one hand, comply with established regulations and rules for the use of pesticides and agrochemicals, taking into account their negative impact on human health and NPS, and, on the other hand, financial and technical encouragement of agricultural producers to reduce the use of agrochemicals and, accordingly, reduce environmental risk. Thus, it can be characterized as a compensatory and regulatory strategy to reduce environmental risk. The specific procedure for the use of pesticides and agrochemicals is determined by the state executive authorities in the field of safe circulation of pesticides and agrochemicals taking into account the phytosanitary, sanitary and environmental situation.

In the United States, there are programs that provide financial and technical incentives for farmers to reduce their environmental risk. The basis of the programs is an approach based on the awareness of farmers that the benefits from reducing the cost of chemicals and the resulting environmental benefits compensates for the risk of loss of crop.

One of the elements of geo-management is the landscape-biosphere models of land and nature use as elements of geo-management of territories.

Geoecological forecasting is called the development of representations about the natural complexes of the future and their changing conditions, including those caused by anthropogenic activity; This is a set of actions that make it possible to reflect on the state of the natural systems. The main task of geoecological management and forecasting is to assess the possible reaction of the NPS to direct or indirect human influence and to prevent adverse processes caused by the impacts of various types of nature management. The object of geoecological forecasting - natural systems, agroecosystems, landscapes and their territorial connections. It is necessary to study the changes in factors and sources of external influence. Geoecological forecasting consists of three blocks, which are combined with the intended purpose: natural-landscape (structure and natural potential of the landscape), socio-economic (anthropogenic influence and capacity) and a block of environmental problems and situations [80].

For example, the complex effect of renewable processes in the basins of small rivers requires unconventional approaches to the implementation of broad reclamation measures in each element of the landscape [81].

The basic principle of landscape-biosphere models consists in imposing on each element of the landscape the matrix of agrotechnical, engineering, reclamation and phytomelioration measures, taking into account the technogenic influence on the landscape. This does not complicate the problem, but, on the

contrary, in each particular case, directs to the fulfillment of the specific, inherent precisely for this element of the landscape, technologies.

For example, despite the diversity of relief in the basins of small rivers, the following basic structural elements have been identified in Polissya: 1) land roots with average soil fertility indices; 2) low-yielding land - clay-sandy soils and boron terraces in natural biogeocoenoses in cultivation; 3) dried mineral and rubber (on peat) land; 4) marshes, drained and natural; 5) channels, as well as the floodplain of small rivers (meadows); 6) surface waters - lakes, ponds, reservoirs (natural and artificial origin); 7) forests and afforestation (Table 2.4).

Structural elements of the landscape of the Forest-Steppe, Northern and Central Steps include: 1) technological groups of erosion forms of relief: I - mostly flat lands with a slope of 30, II - lands with a slope of more than 30 and III - with a slope of more than 70; 2) girder-beam systems - land cultivation and natural phytocoenosis, settlements; 3) floodplains of rivers and meadows, mostly degraded and depleted in useful vegetation; 4) channels of small rivers, mostly polluted, cluttered and blackened; 5) ponds, lakes and reservoirs - with traces of eutrophication, sedimentation and pollution; 6) forests and forest belts, which in their mass need renewal and repair.

The technological block of environmental matrices consists of a set of reclamation and agronomic measures that are characteristic of all natural and climatic zones. They include:

- 1) selection of contours in nature and formation of landscape systems, cartographic material;

- 2) Improvement of the software and structure of sown areas, the regulation of natural lands and water objects. In the future, such services will be on an online platform for drafting technical documentation, business plans, system management, etc;

- 3) The organization of cultural works is an obligatory element for all forms of relief, which provides for differentiated cultivation of soil, as well as

cultural works on sloping lands, in accordance with the program of contouring-reclamation organization of the territory. In terms of capital investments, this is the most time-consuming and voluminous work that takes the lion's share of total funding. Their execution is possible at high technical equipment with digging machine, hydraulic engineering and transport mechanisms, which will serve as a significant stimulus for the development of domestic industry;

4) Chemical melioration and biotechnology - in farming systems is the main factor of the deficit-free balance of humus, nutrients, maintenance of soil solution reaction on acidic, saline and salinized soils in optimal values for plant development;

5) Integrated protection of objects and reproduction of natural resources - is practically and mainly a new type of economic activity associated with the industry of biological methods of plant protection, combined with the use of savings, if necessary, artificial pesticides. Obviously, the fields will have to leave the natural vegetation striped for the breeding and maintenance of natural entomophagous. To the integrated protection of objects should be added the introduction of relic vegetation, destroyed by previous use, and reorientation of hunting farms for the breeding of wild fauna in order to return it to renewable natural entities. It is supposed to recreate fish farms, especially with the incubation of valuable fish species for natural and artificial reservoirs;

6) Forest-meadow measures - for the reproduction of meadows and pastures in Ukraine there will be a huge need for seeding meadow and fodder grasses; expansion and formation of new nurseries will be required for growing seedlings of forest crops, bushes, fruit trees. The productivity of meadows and pasture lands should be raised to the average European level, and the forests of all regions of Ukraine should meet the established standards.

Factors for reducing productivity and destabilizing landscapes are a factor that should be taken into account in the design documentation, business plans, as such, which is not allowed in the process of engineering and cultural

engineering work. These documents are developing ways and technologies to avoid undesirable effects.

Management of the system of renewable land - and the use of natural resources should be based on information flows that contain a database of natural resource support, the integration of environmental information with economic indicators and vice versa. For management in the agrarian sector and in general for environmental use, it is advisable to use different techniques that take into account the levels of anthropogenic impact on NPPs [78].

For example, the score scale assumes a zero level of disturbances and contaminations, which is only possible in an ideal situation. Therefore, for a point of reference, 1 point is taken with weak or very low manifestations of degradation processes, 2 points corresponds to the average level, 3 - strong and 4 - very strong, which borders on ecological catastrophes (Table 2.3, 2.4).

Table 2.3

The scale of degradation processes and anthropogenic filling on the small rivers area

Balance level infringement and pollution	Degradation processes					Anthropogenic processes					
	Erosion		The ecological state of small rivers	Degradation of forest areas	Reduced fertility of soils	Acidification, salinization of soils	Air pollution	Chemical pollution of the environment	Radioactive pollution	Disruptions of landscaping	Environmental dependence of the population
	Water	Wind									
	Rinse of, %	Wind erosion index, units	Point	Destruction of flood, times	Humus content decrease, relative, %	pH	Point	Point	Ki / km ²	% to square s.-g. land	%
1	2	3	4	5	6	7	8	9	10	11	12
0	Missing 0	Missing 0	Good, 0	Missing 0	Missing 0	Відсут не 6,5-7,0	Missing 0	Clean 0	Minor <1.0	Within the limits of the standards <40	Very low <15
1	Weak <10	Weak <1.0	Middle 1	Weak <1.5	Weak <3%	Weak 5.0-5.5 7.1-7.5	Weak 1	Relatively clean 1	Living Area 1.0	Low <65	Low to 15

Table continuation 2.3

1	2	3	4	5	6	7	8	9	10	11	12
2	The average is 30-50	Average 1,7	Satisfactory 2	Average <1,7	Average <10%	Average 4.5-5.0 7,5-8	Average 2	Contaminated 2	Voluntary resettlement zone 3,0-5,0	Average to 70	Average 20-22
3	Strong 51-70	Strong to 3,5	Unsatisfactory 3	Strong <2,5	Strong 14%	Strong 4.0-4.5 8-9	Strong 3	Very dirty 3	Obligation to resettle area <15	High 80-85	High 23-30
4	Very strong >70	Very Strong >3,5	Very bad 4	Very Strong >2,5	Very Strong >14%	Very Strong <±5 >9	Very strong 4	Ecological catastrophe A.	Ecological Catastrophe >15	Very Strong 85-90	Very Strong >30

Table 2.4

Environmental assessment of degradation and anthropogenic impact on the natural environment on the small rivers areas, points

Natural Climatic zones	Degradation processes						Anthropogenic processes						The general stage of pollution	
	Erosion		The ecological state of small rivers	Degradation of forest areas	Reduced fertility of soils	Acidification, salinization of soils	Air pollution	Chemical pollution of the environment	environment pollution	Disruptions culture	dependence of population health	Sum	Medium	
	Water	Wind												
Polissya	1	1	3	2	3	3	2	2	3	2	4	26	2,4	
Forest-steppe	2	1	3	2	2	2	2	2	2	4	2	24	2,2	
Degree of degradation and pollution in Ukraine	Close to the average	Close to weak	Poor and very bad	Strong and very strong	Close to the average	Above average	Close to strong	Polluted and very contaminated	Close to the average	Close to very high	High		Close to strong	

The overlay of the environmental assessment scale for 11 types of degradation and contaminations covering natural climatic zones and sub-zones

showed that almost all types of environmental imbalances correspond to the average of the scale or "above average, unsatisfactory, strong and very strong." The total degradation index in the Polissya area (except for territories contaminated with radionuclides as a result of the Chernobyl nuclear disaster) is 2.4 points, in the northwestern region of Polissya and Forest-steppe (ecologically safe) - 2 points, in the zone of the Forest-steppe 2.2, in the regions of the northern and central Steps - 3,0 southern Steps - 2,6 points, depicting the ecological characteristics of the main natural and climatic zones of Ukraine.

Consequently, the complex solution of economic and environmental problems is to develop an ecologically-biosphere concept of renewable land and natural resources, which is most common in the natural conditions of Ukraine. Such information will serve in simulating situations and final decision-making in the state geo-government system.

BIBLIOGRAPHY

57. Зось-Кіор М.В. Удосконалення системи управління земельними ресурсами аграрних підприємств в умовах глобалізації : монографія / Зось-Кіор М. В. – Полтава: ПолтНТУ, 2015. – 333 с.
58. Гуторов О. І. Проблеми сталого землекористування у сільському господарстві: теорія, методологія, практика: [монографія] / Гуторов О. І. – Харків : Едена, 2010. – 405 с.
59. Лидси Б. Глобализация: повторение пройденного: Неопределенное будущее глобального капитализма / Лидси Б. – М. : ИРИСЭН, 2008. – 416 с.
- Мартин А. Г. Регулювання ринку земель в Україні : монографія / Мартин А. Г. – К. : Аграр Медіа Груп, 2011. – 254 с.
60. Хвесик М. А. Інституціональне забезпечення землекористування: теорія і практика : монографія / М. А. Хвесик, В. А. Голян. – К. : Книжкове видавництво НАУ, 2006. – 260 с.
61. Tongeren, F. Agricultural Productivity and Sustainability in The G20/ F. Tongeren // Proceedings Issues, 2013: Productivity and Its Impacts on Global Trade, June 2-4, 2013. Seville, Spain. [Digital source]. – Access mode : <http://econpapers.repec.org>.
62. World Development Indicators. Data from The World Bank web-portal. [Digital source]. – Access mode : <http://data.worldbank.org>.
63. Розвиток системи державного управління в Україні 85 УДК 353.711 ... irbis-nbuv.gov.ua/.../cgiirbis_64.exe?..
64. Земельний кодекс України [Електронний ресурс]. № 2768-III від 25.10.2001 р. – Режим доступу: <http://www.zakon.rada.gov.ua>.
66. Про Державний земельний кадастр : Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.

67. Про державний контроль за використанням та охороною земель : Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
68. Про землеустрій : Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
69. Про колективне сільськогосподарське підприємство : Закон України № 2114-XII від 14.02.92 р. – Режим доступу: <http://www.zakon.rada.gov.ua>.
- Про оренду землі : Закон України № 161-XIV від 06.10.98 р. – Режим доступу : <http://www.zakon.rada.gov.ua>.
70. Про особисте селянське господарство: Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
71. Про охорону земель : Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
72. Про оцінку земель : Закон України [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
73. Про ринок земель : Проект Закону України № 9001 [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
74. Про ринок земель : Проект Закону України № 9001-д [Електронний ресурс]. – Режим доступу : <http://www.zakon.rada.gov.ua>.
75. Про селянське (фермерське) господарство : Закон України № 2008-12 від 20.12.91 р. – Режим доступу: <http://www.zakon.rada.gov.ua>.
77. Про прискорення земельної реформи та приватизацію землі : Постанова ВР України № 2200-XII від 13.03.92 р. – Режим доступу : <http://www.zakon.rada.gov.ua>
78. Інтегральні та комплексні оцінки стану навколишнього природного середовища: монографія / О.Г. Васенко, О.В. Рибалова, С.Р. Артем'єв, Н.С. Горбань, Г.В. Коробкова, В.О. Полозенцева, О.В. Козловська, А.О.

Мацак, А.А. Савічев. – Х: НУГЗУ, 2015. – 419 с.

79. Методичні рекомендації, Наказ №224 от 29.07.2002, Про ...
search.ligazakon.ua/l_doc2.nsf/link1/ME02121.html

80. Геоекологічне прогнозування та екологічна експертиза ...
https://pidruchniki.com/.../геоекологичне_прогнозування...

81. До проблеми оптимізації земле- та природокористування ... – eSNUIR
esnuir.eenu.edu.ua/bitstream/123456789/1404/1/Carik.pdf