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«Institute of Environmental Economics and
Sustainable Development of the National
Academy of Sciences of Ukraine»



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of the National Academy of Sciences of Ukraine»

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Table of Contents

Multipurpose use of forest resource potential: incentive mechanism, institutional, innovation and investment support	4
National Paradigm of Sustainable Development of Ukraine	4
Trends in planetary climate change and their possible impact on major sectors of the Ukrainian economy	5
Sustainable development: ideology of the future	5
Institutionalization of natural resource relations	6
Innovation, investment and technological security of transforming regional economic systems: monograph	6
Water security of Ukraine in global terms	7
Institutional development of waste management in Ukraine: Towards European integration	7
Formation of a model of natural resources management in market economy terms	8
Comprehensive economic assessment of natural resources	8
Systematic aspects of natural resources capitalization	9
State and prospects of capitalization of regional land resources in the context of sustainable development of Ukraine: monograph	9
Capitalization of natural resources	10
Formation of rent relations in the water economy of Ukraine	10
Socio-economic potential of sustainable development of Ukraine and its regions: national report	11
Ecological modernization in the system of natural, technogenic and ecological safety	11
Economic aspects of natural resource management and ensuring sustainable development under power decentralization in Ukraine	12
Economic assessment of Ukraine's natural wealth	12
Ukraine's National Sustainable Development Paradigm –Second edition, revised and supplemented	13
Water resources as part of Ukraine's natural wealth	13
Financial-economic mechanism of management of territorial natural-economic complexes	14
Rent principles of modernization of water management complex of Ukraine	14
Ecological modernization in the system of atmospheric air protection in the regions of Ukraine	15

Socio-economic potential for sustainable development of Ukraine and its regions: vectors of real progress: national report	15
Formation of a system of mechanisms of management of natural resources in the context of European integration processes	16
Environmental Economics: A Glossary of Basic Terms	16
Natural resources in financial-economic support of the development of a united territorial community	17
Environmental and natural-technogenic safety of Ukraine in terms of the Fourth Industrial Revolution	17
Integrated Water Resources Management in Ukraine	18
Public-private forms of ensuring sustainable spatial development of Ukraine	18
Trajectory of sustainable development of Ukraine up to 2030: a national report	19
Environmental Economics: Development Vectors	19
Financial-economic principles of environmental management	20
Socioecological imperatives for the development of rural territorial communities	20
Ecosystem principles for assessing environmental pollution losses	21
Establishing a spatial management system for natural resource assets	21
Ecological safety of urban-rural agglomerations in the formative context of the natural resource market	22
Formation of an interaction platform between natural resource and market cycles of development	22
Institutional support of financial and economic regulation of water use	23
Evaluation of ecosystem assets of territorial communities	23

Multipurpose use of forest resource potential: incentive mechanism, institutional, innovation and investment support

Khvesyuk M.A., Shubalyy O.M., Vasylyk N.M.



The monograph considers components, features, principles, directions, economic incentives and methodological grounds of organizing, as well as the main problems of forming a mechanism to stimulate multipurpose use of forest resource potential. The authors analyse forest resource potential, the intensity of its reproduction and involvement in the economic turnover on the example of a highly forested region. The results of stimulation are studied and an integral assessment of multipurpose use of forest resources is carried out. Areas of institutional transformation of economic relations are substantiated, institutional support for sustainable development and perspective organizational forms in the institutional structure of the forest sector are considered. Conceptual provisions of the strategy, organizational and economic foundations of the formation of the incentive mechanism as well as a model of stimulating the creation of new added value based on multipurpose use of forest resources potential are developed. The key problems of development, legal framework, foreign experience of innovation and investment activity in the forest complex are considered. The analysis and assessment of the efficiency of innovation and investment activity of regular forest users is carried out, conceptual provisions of the innovation and investment strategy of developing the regional forest sector are substantiated.

National Paradigm of Sustainable Development of Ukraine

edited by Academician of the NAS of Ukraine, Doctor of Technical Sciences, Honored Scientist and Engineer of Ukraine B. Paton

Modern tendencies, strategic bases and perspective areas of sustainable development of Ukraine in the global environment are determined through analysis and evaluation of the latest scientific concepts of economic management in the context of international economic dominating ideas in accordance with the current strategic potential of the state. Conceptual bases for sustainable development of natural resource potential, including land, water, mineral, raw, forest resources, social component, conditions for guaranteeing natural-technogenic and ecological safety, etc. are developed. Prospects of national ecological and economic policy are determined, the national paradigm and program basis for perspective sustainable development of Ukraine are proposed.



Trends in planetary climate change and their possible impact on major sectors of the Ukrainian economy / NAS of Ukraine, PI IEESD

edited by M.A. Khvesyk



The monograph researches into the problems of global planetary climate change and its possible negative aftereffects in the natural environment and economy of Ukraine and the world, analyses the main of these manifestations in particular economic sectors, identifies strategies, directions and measures to mitigate them, given two possible alternative climate change trends: further warming and an alternative cooling cycle.

Institutionalization of natural resource relations

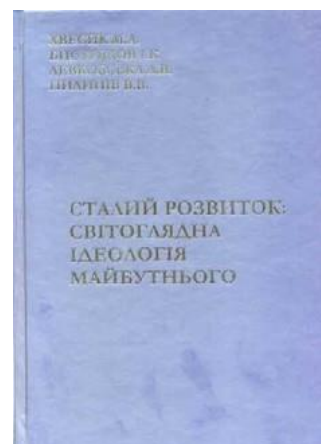
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



In the light of the strategic concept of sustainable development, institutionalization of natural resource relations in the process of building a system of high-efficiency corporate environmental management based on innovative forms of natural resource management is considered from the standpoint of a comprehensive methodology. Economic and organizational mechanisms of perspective development of natural resource relations in the conditions of the modern market economy are proposed.

Sustainable development: ideology of the future

Khvesyk M.A., Bystryakov I.K., Levkova L.V., Pylypiv V.V.



The authors attempt to elucidate the ideology of sustainable development in the dialectical combination of philosophy issues and theoretical aspects with modern views on the ways of economic development of society. The principle position is to reaffirm the national specific character of achieving the goal of sustainable development of Ukraine.

Innovation, investment and technological security of transforming regional economic systems: monograph

Khvesyk M.A., Stepanenko A.V., Obykhod H.O. et al.



The monograph elucidates fundamental and applied issues of innovation, investment and technological security, the system of threats and challenges related to them, basic parameters of the transformation of regional systems in the context of innovation changes. The authors studied genesis peculiarities and the danger potential of innovation and investment transformation of regional systems, determined the system of risks in innovation activity and their structure. Market transformation of the state economy, regional economic systems and innovative character of their functioning are considered. The issues of global technological sphere development, technological modernization of the national economy, technological security of innovation and investment transformation of the economy are researched. New principles of advanced and breakthrough strategies of scientific, technological and innovative development in the systematic policy of public management are substantiated.

Water security of Ukraine in global terms

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The monograph is dedicated to the study of theoretical, methodological and applied principles of ensuring the safety of Ukraine's water resources in global terms. The scientific results of the research are aimed at the formation of modern approaches and mechanisms for maintaining safe development of the state water and resource potential, taking into account the system of national interests and priorities.

The theoretical and methodological bases of considering Ukrainian water resources through the lens of safety are substantiated, the basic global characteristics of water supply and their regional peculiarities are evaluated. Basic parameters of water supply for Ukraine's economy and population in terms of safety are determined. Conceptual approaches to the formation of strategic bases for increasing the level of water supply for the economy and population, as well as asset of priorities for Ukraine's water security strategy based on defining the principles of legislative support, strategic grounds, and mechanisms of state regulation of water use are proposed.

Formation of a model of natural resources management in market economy terms

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The monograph researches into the essence, functions and mechanisms of natural resources management as a component of spatial socio-economic development of the country from the standpoint of systematic methodology. Areas of forming regulatory mechanisms of nature management are determined and a model of natural resources management in the newest economic terms with the purpose of their sustainable use, recovery and protection as a natural resource base of spatial socio-economic development is proposed.

Institutional development of waste management in Ukraine: Towards European integration

V.S. Mishchenko, Y.M. Makovetska, T.L. Omelyanenko



The theoretical and methodological basis and safety factors of solving the waste management problems in the modern world have been considered. The basic tendencies of waste generation in Ukraine have been investigated and bases

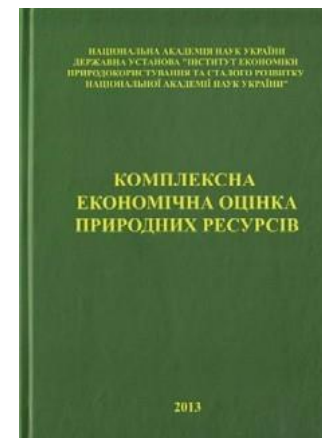
of forming financial strategy for sustainable waste management have been defined.

The state of harmonization of national legislation on waste management with the European Union legislation has been evaluated. The content and implementation peculiarities of waste management basic Directives – 2008/98/EC on waste, 1999/31/EC on the landfill of waste, 2006/21/EC on the management of waste from extractive industries have been highlighted.

Herewith considerable attention has been paid to the terminology. Approaches to assessment of the implementation value indicators of the directives has been approved.

Comprehensive economic assessment of natural resources

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The author studies theoretical and methodological foundations and criteria of classification of complex economic assessment of natural resources as the basis of capitalization of the natural resource sphere in the context of the strategy of sustainable development of environmental management in Ukraine. Special features of mechanisms of forming and applying cost and rent approaches to economic assessment of natural resource potential components, ecological and social factors as intangible assets, their involvement in economic market relations are elucidated.

Systematic aspects of natural resources capitalization

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The paper elucidates a modern view on the formation of conditions of economically justified maintenance of natural resources self-regeneration in the context of the state sustainable development based on comprehensive scientific research.

Capitalization of natural resources

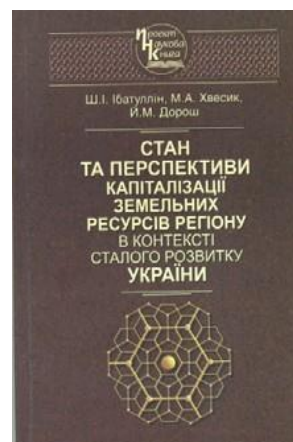
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



Conceptual principles of increasing capitalization of natural resources in order to ensure sustainable development of Ukraine's territorial economic space are elucidated. Particular attention is paid to the problem of determining reserves for self-development of the natural component of ecological systems related to the so-called profitable approach to natural resources.

State and prospects of capitalization of regional land resources in the context of sustainable development of Ukraine: monograph

Ibatullin Sh.I., Khvesyk M.A., Dorosh Y.M.



The monograph substantiates theoretical and methodological foundations of capitalization of regional land resources on the principles of sustainable development. Provisions of spatial economy for the purpose of improving the system of managing land matters development at the regional level are elaborated.

Formation of rent relations in the water economy of Ukraine

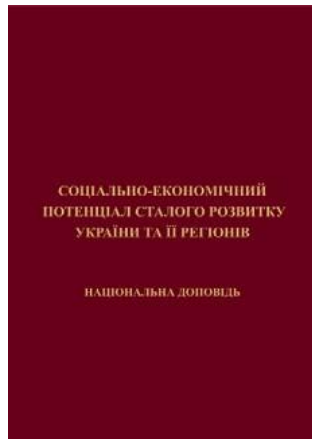
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The monograph deepens theoretical and methodological foundations of forming rent relations in the water economy of Ukraine. New approach is applied to consider the economic nature of water rent. Methodological approaches to determining the value of rental income in various segments of the water use sector are updated, and an impact of integration processes on the system of legal regulation of rent relations is studied. A comprehensive assessment of the sources of rental income generation in the use of water resources in selected sectors of the national economy is carried out. Strategic areas of transforming Ukraine's water management system based on the model of rent relations formation are substantiated. The institutional basis for transforming the water management system based on the application of public-private partnership agreements is developed, in particular, areas for improving institutional support to the lease and concession regime of water use are substantiated. Measures are proposed to expand the range of forms and sources of investment support for water use in the context of deepening institutional transformations in the water management complex by improving the rent bases for the formation of financial funds for an expanded regeneration of water resources and modernization of water management and water protection infrastructure.

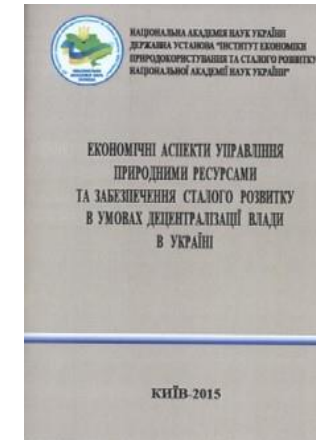
Socio-economic potential of sustainable development of Ukraine and its regions: national report

edited by Academician of the NAS of Ukraine E.M. Libanova,
Academician of the NAAS of Ukraine M.A. Khvesyuk



The current state, tendencies and problems of restoring socio-economic potential of sustainable development of Ukraine and its regions are studied. The methodology of forming the system of efficiency indicators of regional socio-economic development is proposed and a systematic and comprehensive assessment of socio-economic potential of sustainable development of Ukraine is carried out. Considerable attention is paid to conceptual, scientific and methodological approaches to assess the social potential of the state and its regions, the prospects of modernizing social infrastructure and the formation and use of territorial migration systems. Basic imperatives and strategic areas of rationalizing all spheres of resource use are determined based on energy security assessment of national economy development, improvement of land management system as the main determinant of effective use of territorial basis of sustainable development of regional economic complexes, formation of a model for implementing rent relations into the water use management and the system of investment support for the water use sector, priority transformation of forest management system. Methodological principles of capitalization of the natural resource component of the socio-economic potential of sustainable development and prerequisites for an institutional development of the waste management and resource recovery area in the context of strengthening the European integration vector of Ukraine's development are elucidated.

Economic aspects of natural resource management and ensuring sustainable development under power decentralization in Ukraine



The concept and essence of power decentralization and subsidiary in the provision of public services are studied. Economic aspects of natural resource management under decentralization as necessary factors for realizing people's social rights at the local level are substantiated. Ways of strengthening the local self-government institute and empowering territorial communities and regions, developing the financial system through improving tax and budget legislation in the field of nature management are proposed.

Ecological modernization in the system of natural, technogenic and ecological safety

Stepanenko A.V., Obykhod H.O., Omelchenko A.A., et al.



The monograph covers scientific foundations of ecological modernization in the context of ecological and technogenic safety, elucidates its forms and features in the economy and in social terms. Ecological modernization assessment and its quantitative parameters in the regions of Ukraine are carried out. Considerable attention is paid to an ecological modernization of the protection and use of atmospheric air, water resources and waste. Strategic goals, objectives and principles of the state policy on ecological modernization of environmental protection are determined, strategic areas of increasing the efficiency of ecological modernization and mechanisms of implementing measures for modernizing the environmental protection system are elaborated. International cooperation and financial support for the implementation of the state environmental protection policy of explicated.

Economic assessment of Ukraine's natural wealth

edited by Academician of the NAS of Ukraine S.I Pyrozhkov,
Academician of the NAAS of Ukraine M.A. Khvesyuk



The monograph determines the value of the country's natural wealth in terms of innovative methodology. It offers a comprehensive economic assessment based on the use of systematic views on the formation of natural resource capital of Ukraine and ensuring an effective spatial and sectoral distribution of its income. Recommendations on applying the results of economic assessment of natural resources in terms of strengthening the national economic system are given. In particular, substantive features and structure of organizational, economic and institutional mechanisms for implementing a comprehensive economic assessment of the natural wealth of the territories in the process of ensuring a balanced use of nature and effective management of sustainable development of the state are explicated.

Ukraine's National Sustainable Development Paradigm – Second edition, revised and supplemented

edited by Academician of the NAS of Ukraine, Doctor of Technical Sciences, Honored Scientist and Engineer of Ukraine B. Paton



Prerequisites and components of a sustainable development model are formed, taking into account natural resource constraints and exacerbation of environmental and social contradictions. The expediency of implementing best foreign practices of environmental policy and rational environmental management into the national practice of regulating environmental activities is substantiated. An approach to using natural resource potential on the principles of sustainability and introducing sustainable development principles in the social sphere is proposed; mechanisms for ensuring natural-technogenic and environmental safety, as well as tools for investment support for sustainable development are elaborated. Prospective areas of transition of the national economy to a sustainable development model by implementing innovative dominants of socio-economic uplift, providing sustainable nature management, solving social problems and ensuring natural-technogenic and ecological safety are grounded. An innovative approach to the modelling of sustainable development trajectory based on systemic restructuring of territorial natural and economic complexes is proposed.

Financial-economic mechanism of management of territorial natural-economic complexes

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The paper researches into the development of scientifically grounded approaches to the formation of financial-economic mechanism for project management of territorial natural-economic complexes based on rational use of available natural assets. It provides the directions for ensuring the improvement of the environment of the population of the territories through intensification of processes of natural capital self-regeneration and sustainability of territorial economic systems.

Water resources as part of Ukraine's natural wealth

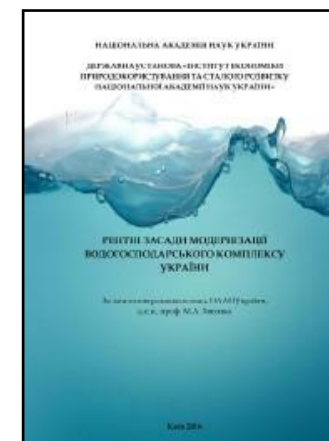
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



Cost characteristics of Ukraine's water resources are considered in terms of natural wealth. Theoretical and methodological foundations of the concept of their economic assessment are determined. Basic fundamental positions are formed, which must be taken into account when conducting an aggregate economic assessment of the water component of the country's natural wealth. The cost indicators of the latter are studied at the state, regional and industrial levels. It is determined that water resources can generate high cost, which will contribute to their involvement in economic processes. This, in turn, intensifies implementation of investment projects and the use of innovative tools (rent, eco-services, capitalization, etc.) based on the cost characteristics of this type of resources. Basic approaches to increase the efficiency of using the water component of natural wealth in accordance with its economic assessment are formed. Innovative areas of introducing cost characteristics of water resources in water management practice are proposed.

Rent principles of modernization of water management complex of Ukraine

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The monograph deepens the theoretical and methodological foundations of modernization of the water management complex of Ukraine, in particular regarding the formulation of principles, determination of stages, choice of forms and methods of institutional and innovation-technological modernization of its main segments. It structures the principles of diversification of investment support sources of water use, which, unlike the existing one, take into account the sectoral features of economic water resource development, compliance with the requirements of integrated management of natural resources and the contradictions of institutional changes in the water management complex of Ukraine. Basic vectors of the positioning of local communities in the context of generation and distribution of water resource rent are identified. Attention is drawn to the active scenario, which suggests that local territorial communities can promote the formation of local benefits. These benefits constitute a certain field of opportunities mobilizing economic agents of the water use sphere, which will increase the capitalization of water facilities.

Ecological modernization in the system of atmospheric air protection in the regions of Ukraine

Stepanenko A.V., Obykhod H.O., Omelchenko A.A. et al.



The paper elucidates scientific foundations and theoretical aspects of ecological modernization in the system of atmospheric air protection; it analyses the dynamics and component composition of pollutants and air quality. The authors analyse and assess the environmental safety of the air and its ecological risks. Much attention is devoted to ecological modernization in the air protection system, in particular to the introduction of measures to improve technological processes; an integrated assessment of the level of ecological modernization of air protection is developed. The authors substantiate the directions of strategic management of ecological modernization in the atmospheric air protection system and quality assurance. The strategic goals and principles of the state policy in this area are defined, the tasks of ecological monitoring of the air condition and quality are substantiated, the plan «Heat» and the concept of the program of atmospheric air protection in cities are proposed, the strategic directions for increasing the efficiency of ecological modernization and mechanisms of its implementation are developed.

Socio-economic potential for sustainable development of Ukraine and its regions: vectors of real progress: national report

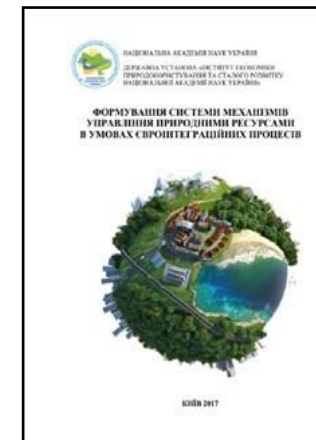
edited by Academician of the NAS of Ukraine E.M. Libanova, Academician of the NAS of Ukraine M.A. Khvesyuk



The report studies the socio-economic potential of sustainable development of Ukraine and its regions in the context of real progress. It highlights the problems of creation of cascading forms of organization of operational interaction of regional socio-economic systems. The financial-economic mechanism for management of territorial natural-economic complexes and rent principles of modernization of the water industry of Ukraine are offered. It analyses the role of social resources under decentralization and ways of overcoming the asymmetry of functioning of the business sector as a component of sustainable development of the domestic economy. Mechanisms of the state regulation of industry restructuring are developed. Methodological foundations and directions of reforming the administrative and territorial structure of Ukraine are formulated. The legal principles of regionalization of the state economic management are outlined.

Formation of a system of mechanisms of management of natural resources in the context of European integration processes

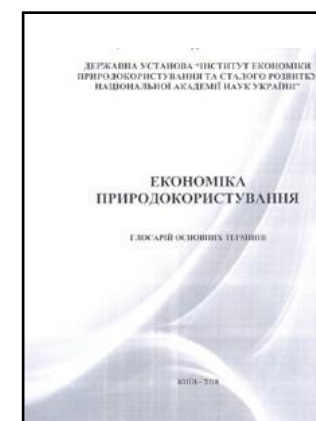
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



The paper studies the key aspects of development of the methodology of natural resources management in Ukraine, taking into account the European integration-related factors. In particular, it elucidates the substantive features of the algorithm for implementing the innovative concept of decentralization of the relevant management system. Attention is focused on identifying ways of reformatting the structure of financial and organizational-economic mechanisms for managing natural resources to maximize a positive effect. Due attention is also given to institutional and regulatory support for the transformation of the natural capital management system.

Environmental Economics: A Glossary of Basic Terms

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyuk



Glossary provides basic concepts of the main phenomena and processes related to environmental economics. Its distinguishing feature is a comprehensive focus that takes into account the fundamental elements of natural resources. It draws attention to the possibilities of using and introducing new tools for regulating economic relations in the field of natural resources. Among these tools are capitalization, corporatization and securitization, which have long existed in many countries while in Ukraine they are just being implemented. The Glossary attributes considerable importance to European practices in interpreting the basic concepts. In particular, it presents EU sectoral directives on environmental protection.

Natural resources in financial-economic support of the development of a united territorial community

(recommendations for local leaders and UTC heads)



The recommendations explain the main aspects of formation of a modern financial and economic mechanism of capitalization of natural resources of a united territorial community under economy management decentralization. The essential features and basic approaches to their capitalization are considered and the algorithm of this process is proposed. The financial-economic levers and tools for capitalization of natural resources and their transformation into full-fledged assets at the municipal level are identified. Possibilities of using the modern financial-economic components of the above mechanism in the united territorial communities are analysed. These components include fiscal and divestment tools, concession agreements, joint project financing, etc.

Integrated Water Resources Management in Ukraine

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The monograph proposes a paradigmatic concept of the integrated water resources management based on the modern institutionalism theory and ecosystem approach. An identification matrix of water use patterns is developed, taking into account the projected water resource needs of the national economy in the face of climate change and transformation of social relations; a conical adaptive model of the integrated water resources management is proposed, within which a hierarchical structure of the state's support priorities for the projects aimed at developing territorial water management complex is designed.

Environmental and natural-technogenic safety of Ukraine in terms of the Fourth Industrial Revolution

Khvesyk M.A., Stepanenko A.V., Obykhod H.O., Kutsenko V.I., Omelchenko A.A. et al.



The monograph elucidates theoretical and methodological aspects of environmental and technogenic safety in the context of economic transformations in Ukraine. The authors explain the integration of environmental and economic policy as a global problem in the discourse of environmental safety, as well as innovation and investment transformations of economic development in the global economy. They assess the impact of economic transformations on environmental and natural-technogenic safety, investigate the development of convergent industries in Ukraine to address environmental safety, and propose the introduction of an adaptive mechanism for managing the greening of innovative activity and the institutionalization of the state regulation of sustainable socio-economic development. They consider the economy transformations as a way to increase the level of environmental safety. The authors identify the tendencies and directions of formation and development of social threats and dangers in the conditions of economic transformations. They analyse and assess social security levels in Ukraine and its regions. The conceptual bases of waste management in the context of the fourth industrial revolution are presented, the possibilities of integration of its achievements in the waste management area and the conditions of formation and implementation of the circular economy policy in Ukraine are assessed.

Public-private forms of ensuring sustainable spatial development of Ukraine

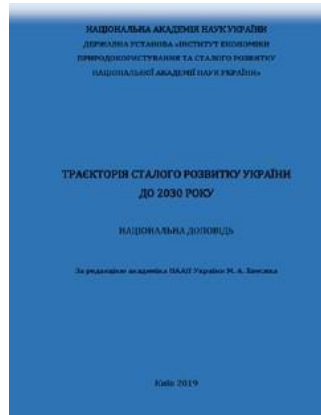
edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The paper highlights the key provisions of an innovative concept of a sustainable institutional environmental economics, which is integrated into the global economic system and based on wide cooperation between public authorities and business in the interests of the community. Modern European formats of public-private relations are considered as a tool for effectively addressing territorial economic problems, ensuring sustainable spatial development of the country and its regions. The directions of implementing the innovative forms of public-private partnership in the system of natural resources management of Ukraine are identified; the roadmap and other institutional support materials of this process are developed.

Trajectory of sustainable development of Ukraine up to 2030: a national report

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The report outlines the key problems of the trajectory of a sustainable development of Ukraine up to 2030. Theoretical and methodological foundations of financial and economic regulation of nature management under conditions of deepened institutional transformations are developed. The report studies the formation of a model of integrated water resources management. Theoretical-methodological and scientific-methodological foundations of the use of social and labor potential as factors of economic growth are proposed. The report provides theoretical substantiation of the sustainable development of the Ukrainian industry through its innovative and technological modernization. It explains the mechanisms of an efficient use of technological entrepreneurship potential for developing the domestic market of innovative goods. Strategic imperatives and directions for the modernization of regional policy in the context of forming a model of sustainable endogenous growth are further developed. The report studies environmental activities and features of ecological and economic development of mountain areas. It substantiates the legal and institutional support of the state's socio-economic and environmental policy on the principles of sustainable development.

Financial-economic principles of environmental management

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The financial and economic principles of the regulation of the environmental management under decentralization are developed. They envisage strengthening of its interaction with economic cycles, involvement of natural resources into a zone of market influence and acquisition of market asset attributes with the possibilities of forming systemic effects (capitalization of natural resources, their active use by private companies, the probability of payments for the use of resources, investing in natural resources, etc.). Indicators are determined and basic characteristics of the use of regulatory means are investigated (by calculating the concentration factor of activity of the financial-economic regulation, by assessing the system of real and potential rent indicators, investment profiles and directions of investment support for the modernization of the environmental management sphere, financial and economic parameters of intensification of the instrument of ecosystem services). They demonstrate the need for their transformation and the introduction of new regulatory instruments that can create the large financial flows to budgets. The foundations and principles of the financial-economic regulation in the conditions of post-industrial economy under the influence of exogenous and endogenous factors of different genesis are developed, resulting in more active use of the potential of regulatory instruments. A logistic model of the environmental management system is formed, taking into account the requirements of integration, i.e. iterative and functional approaches, object orientation and the possibility of combining natural resources.

Environmental Economics: Development Vectors

Doctor of Economics, Professor, Academician of the NAAS of Ukraine Khvesyk M.A.



For the first time, after years of research, the author and scientists of Public Institution «Institute of Environmental Economics and Sustainable Development of the National Academy of Sciences of Ukraine» present new findings on extremely urgent problems of the environmental economics and sustainable development in a comprehensive and systematic manner. They formulate the basic imperatives and strategic directions of rationalization of all spheres of natural resource use through the innovation-investment model. The author explains methodological foundations of capitalization of the natural resource component of socio-economic potential of sustainable development and institutional support to the nature management sphere; natural-technogenic and ecological safety; waste management and resource recovery under power decentralization and strengthening of the European integration vector. The author proposes a financial-economic mechanism of management of territorial natural-economic complexes and rent bases of modernization of the natural-resource sphere.

The value of the country's natural wealth based on the innovative methodology was determined for the first time. The author explains the substantive features and structure of organizational, economic and institutional mechanisms for implementing his integrated economic assessment into the process of environmentally balanced use of natural resources and effective management of sustainable development of the state. The author outlines the features of the application of public-private partnership in the nature management area and the basic principles of the implementation of this model at the regional and local levels.

Socioecological imperatives for the development of rural territorial communities

Khvesyk M.A., Ilyina M.V., Shpylyova Yu. B.



The authors investigate ecological and social imperatives for direct and indirect regulation of relations in society and its sustainability. They identify the impact of socio-ecological imperatives on the development of rural territories, which takes into account the criterion assessment of their implementation, calculation of the dynamics of individual indicators, dynamic series of integral indices, macroeconomic modelling, etc. The authors substantiate that the implementation of the imperatives at the level of territorial communities is possible only after the unification process is completed and they achieve financial capability, which requires management changes. These changes involve providing the proper powers and independence in decision-making to the communities, setting out a territorial development strategy, and a certain level of social and environmental responsibility. It is emphasized that a community with an adequate level of well-being and an effective management system is capable of conducting strategic planning and justification of the priorities for further development of the territory. All this helps the communities' initiative groups to realize the need to implement social and environmental imperatives and motivates them to do so.

Ecosystem principles for assessing environmental pollution losses

Kolmakova V.M., Veklych O.O., Kobzar O.M., et al.



For the first time in Ukraine, scientific bases of the assessment of losses from environmental pollution are substantiated using an ecosystem approach. The authors investigate methodological, organizational-economic and practical aspects of the formation of innovative mechanisms for assessing losses caused by the deterioration of ecosystem services in public administration and local self-government. These mechanisms meet the requirements of the European regulatory framework. The authors explain the substantive features of the environmental compensation mechanism as a holistic structure and, in particular, the mechanisms of compensation for losses caused by the deterioration/destruction of ecosystem services, pollution of aquatic ecosystems and waste pollution. They present the findings of the study of the ecosystem assessment of losses caused by unsustainable use and pollution of local natural resources, including the formation of an appropriate compensation mechanism. The authors develop their proposals for improving the national institutional and regulatory framework of the assessment of losses from environmental pollution based on the ecosystem approach and foreign experience in implementing this approach.

Establishing a spatial management system for natural resource assets

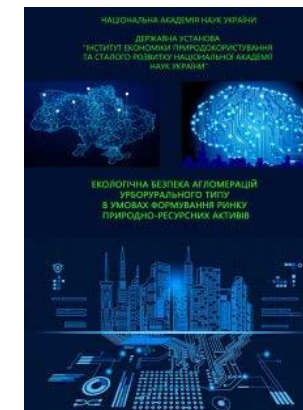
edited by Academician of the NAAS of Ukraine M.A. Khvesyk



The monograph reflects theoretical and methodological provisions and applied aspects of the formation in Ukraine of an innovative spatial system for the management of natural-resource assets of the territorial business ecosystem on the principles of a polysubjective system. This work examines the concept, categorical field and dominance of the spatial management of natural resources. It describes the target functions of the spatial management system assets and the algorithm for its formation from the perspective of the platform economy as well. A spatial model for the management of natural-resource assets of Ukraine is proposed, its structural-functional components and mechanisms are disclosed, as well as an algorithm for its implementation in the national economy. Furthermore, it can be successfully used by scientists, managers, representatives of business and social organizations, anyone interested in natural resource economics and sustainable development.

Ecological safety of urban-rural agglomerations in the formative context of the natural resource market

Khvesyk M.A., Obykhod H. O., Stepanenko A.V. et al

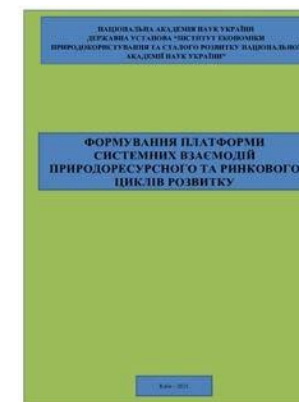


The monograph highlights the conceptual basis for achieving ecological-economic security of the agglomeration space of the urban-rural type. The essential features of its social, environmental and economic security have been identified, as well as the processes of its transformation. First of all, this work is devoted to the formation of the market of natural resource assets in the context of the development of urban-rural space of agglomerations. Hence, a lot of work was done, such as factorization of the urban-rural area production structure. Secondly, recommendations on ecological safety of agglomerations within the framework of formation of the market of natural resource assets are developed, namely, strategic priorities of ecological and natural-technogenic safety are defined, structural-dynamic shifts of the process of guarantee of socio-ecological-economic safety in the context of the creation of innovation-technological base of sustainable agglomeration development are substantiated. urban-rural type. Also, he mechanisms of organizing the market of natural resource assets of such agglomeration formations are given.

To sum up, this paper can be convenient for professionals interested in environmental safety or mechanisms for achieving sustainable development, transformation and modernization processes, along with high school teachers, graduate students, students.

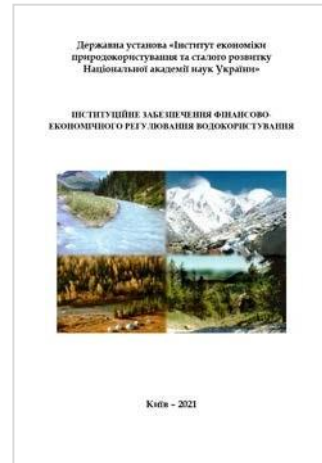
Formation of an interaction platform between natural resource and market cycles of development

edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk



The monograph develops the principles of forming a platform for systemic interactions of natural resources and market development cycles. Scientists establish an algorithm for integrating natural resources into the market environment, which involves the passage of natural resource stages with a change in their positions and the formation of market asset features. Besides, the functioning of platform markets is investigated. A comparative analysis of features of a natural resource and its formations in the market conditions is carried out. Ways to strengthen the potential for integration of natural resources into the market area of influence have been identified. The institutional bases of functioning of the platform of system interactions are formed. The system of tools and measures of the innovative direction of interaction platform development is examined. Furthermore, in order to improve the functioning of the platforms foreign experience was implemented.

Institutional support of financial and economic regulation of water use

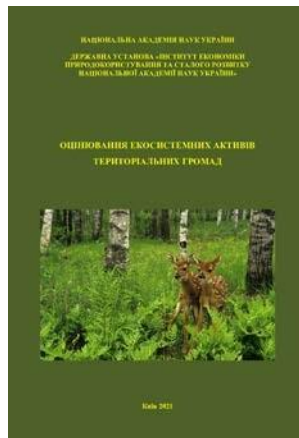


edited by Doctor of Economics, Professor, Academician of the NAAS of Ukraine M.A. Khvesyk

The monograph is devoted to solving the conceptual problems of building a system of institutional support for the implementation of modern mechanisms of financial and economic regulation of water management. According to the results of the research, the theoretical and methodological bases of the formation of the current institutional environment of water use based on the theory of institutionalism and the concept of sustainable development are developed. This work shows the formed model of the institutional environment of cost-oriented management of water resources of Ukraine in the conditions of ecological restrictions. Scientists define priority directions and mechanisms of institutional environment development for the realization of cost-oriented methods of making managerial decisions at development and implementation of integrated plans of river basins, economic substantiation of water management services and water-ecological services in various sectors of the economy.

The results of scientific research can be used by central government agencies, local communities, research organizations in developing projects to optimize the management of water use and reproduction, strategies for economic and social development of the regions of Ukraine.

Evaluation of ecosystem assets of territorial communities



Kolmakova V.M., Veklych O.O., MV Ilyina M.V. et al

In this paper, researchers substantiate the scientific basis for the study of ecosystem assets as natural resource characteristics of territorial communities. On the one hand, methodological approaches are developed and a comprehensive assessment of the ecosystem asset is carried out on the basis of determining the value of ecosystem services related to water, protected areas, and soil resources. On the other hand, the cost of assimilation and oxygen-producing services of forest ecosystems is estimated in the example of separate territorial communities. The results of the assessment of the impact of solid waste landfills on the state of ecosystems, their supporting, regulating and supporting functions are presented. In conclusion, this work forms the algorithm of the introduction of methods of estimation of ecosystem assets in the system of management of natural resources at the local level and give the corresponding scientific and practical recommendations.

This monograph is for scientists, teachers, graduate students, students, government officials, the public interested in issues of ecosystem assessment of natural resource potential of territories and their sustainable development.

