

# ЕКОНОМІЧНА БЕЗПЕКА ДЕРЖАВИ

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## DYNAMIC MONITORING IN ANTI-CRISIS MANAGEMENT OF STATE ECONOMIC SECURITY

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**Introduction.** Officially, the term «economic security» formed in 1985, when the 40th UN General Assembly adopted a resolution «International economic security», where economic security is seen as a security-political and economic activity of the national economies of different countries. The deepening economic crisis in the world and in Ukraine requires scientific research to focus on one of the main material resources, which is able to support the economy of the state, a system of nature.

The effectiveness of the functioning of any level determined by the efficiency of the system management. This requires detailed information support system that can provide crisis monitoring subsystem that constantly collects and organizes data on economic activity in the territory of nature. Therefore examines the actual problem of improving the existing system of environmental-economic-social security state at the regional level. Crisis monitoring provides not only control the internal environment of objects but also an assessment of external and internal markets local resources. Also, the historical data activity included in an analysis. The main purpose of the study with the rapid development of information and communication, computer, and educational innovation is to develop systems develop effective crisis management decisions to justify the estimated figures of different variants of nature using technology continuous dynamic monitoring sites to find the best options.

**Review of recent research sources and publications.** To develop the algorithm structure and management of regional ecological and economic complex objects of nature [1, 2] it is proposed an in-depth analysis of the primary steps of the algorithm to create an information base for further research - crisis computer monitoring inventory of natural resources at local region of the country (for example, Poltava region).

It is established [3] that the integral criterion of market research of natural resources has become an environmental and economic and social. Permanent monitoring is a dynamic information-analytical basis for developing effective crisis management decisions in the first place - at the regional and national levels. The information makes it possible to justify the practice variations using applied mathematical economic models of crisis management, forecasting and modeling effects and performance [4,5].

Analysis of sources of information on the problem of effective regional management of regional resources showed that in most countries the study of natural resources, their potential is performed using monitoring technology to economic, environmental and social assessments regional information resources through inventories of objects of nature and the state of their different geographical conditions. Thus, the US Environmental Sciences legally and publicly effectively protected, published reports by ministries and states in the whole country, memos to the president of the country [6], in 2001 the country implemented program monitoring and evaluation environment EMAP [7].

The resulting dynamic monitoring information is for basic research in laboratories at universities in states conducting scientific expeditions to the territorial and other objects. The key to this is that the leadership of the region (state) is fully hosting their territories: they sell businesses licenses (permits) for the use of all kinds of natural objects, protect them and governing [8]. Nature can only be total information assurance and control in the form of statistical reports as well as continuous dynamic monitoring, including

laboratory and ground observation satellites national wealth - natural territorial environment [9]. Information management support decision-making during crisis management is necessary both at regional and global levels, it is useful also for managing businesses problems of state: demand management of natural resources, pricing options, a number of inventory resources, their reproduction, land reclamation, etc. Thus, a system of dynamic monitoring of natural resources in the region, along with the accumulation of statistical information - a mandatory condition for the first crisis management in the state, followed by the creation of an information network of the country and subsequent integration into the global world of the Internet and other areas investigated in [10].

**The aim of research.** Investigate the actual problem of improving the existing system of environmental-economic-social security state on a regional (territorial) level of environmental management systems.

**Objective:** the rapid development of information and communication, computer, and educational innovation - developing effective crisis management decisions.

Methods of Economic Cybernetics (forecasting, simulation, optimization) and automated database management with information security technology is constantly monitoring the dynamic objects.

**Basic material and results.** In today's complex environment of enterprise management directly associated with the decision task of building an integrated information environment, incorporating the competencies exercised informational support all stages of design and production.

The task this time is real due to significant technical progress in the field of automation and informatization of manufacturing processes.

As objects of study, given the task of changing with time, it is necessary instead of discrete independent decisions on the construction of integrated information protection and security to solve the problem of dynamic, continuous safety management systems. In this case, the transition from a risk management system to the safety management system, which is based on event data accumulated over a period and information on the results of proactive concludes the feasibility and effectiveness of the security system and a choice of control actions.

The work of the system management of virtual data analysis allows building variants of possible situations to simulate the most likely events, including the expected attack. It is necessary to provide centralized storage and constant updating of current knowledge of all business processes and organize the information processing in automatic or automatic mode and generating options and the consequences of actions predicted.

Today and in the future it is relevant and effective in Ukraine, and in each of its regions to develop and implement the environmental-economic-social model of market potential territorial (regional) resources based on a common information space with dynamic monitoring effective options Nature businesses and regulatory measures system of regional management with recommendations of research and scientific laboratories of local, regional universities.

Generally speaking, regional universities of Ukraine are deeply aware of their regional resources and issues, they possess a powerful personnel potential. They capable of taking leading place in investigations and innovative designs for potential natural resource markets of Ukraine and global resource markets, based on recommendations of regional university's laboratories.

The analysis of territorial (regional) resources by the example of Poltava region of Ukraine and the technical and human resource capacity of departments, laboratories Poltava National Technical University (PNTU) showed that almost all faculties of the University have the opportunity on the basis of existing stocks of territorial resources in the region prove promising areas of its research work with the purpose of efficient market business projects regional and national levels. This department of oil and gas, construction, land resources, environmental protection, tourism, economy, Faculty of Architecture (Poltava historical sites and architectural objects), Faculty of Humanities (physical culture and sports, recreational facilities) and others. Integration and implementation perspective directions of innovative environmental and socio-economic development of territories provided by local authorities through investments in laboratory and technical resources departments of universities.

The algorithm and create a schedule Research Institute (SRI) research on problems and implementing effective business projects in the market territorial (regional) resources (for example, Poltava region) and research laboratories base chairs Poltava National Technical University. Y. Kondratyuk base with advanced information management software through continuous monitoring of dynamic resource potential of the territory and socio-ecological and economic control over the implementation of business projects in the laboratories of the Research Institute and the governing structures of regional government (Table 1).

Table 1

Algorithm and schedule of creation in the PNTU the Research Institute of studying and implementation of market potential of territorial (regional) resources

Stages, deadlines	Events, realization, results	Executers, investors, plans
Stage 1 Database 1 subsystem 1 2017-2018 yy	Company SRI consisting PNTU, creating at Sun Labs Departments. Planning work. Technical support. Monitoring statistics. Classification of objects of natural resources. Ecology, threats, reserves, potential users of investors. The database 1	PNTU, research institutes, laboratories and the chairs. Teachers researchers. Other universities in the region. The regional government. Database investor friendly resources. Legal acts and regulations.
Stage 2 Database 2 subsystem 2 2019-2020 yy	Creating a system of dynamic monitoring database objects 1. Analysis of objects in areas of research of economic potential. Legal and environmental constraints. Analysis of possible products and businesses for sale. Advertising, marketing, management. Creating a system of licenses and implementation of tender sales resources. Continuous monitoring of inventory and audit resources. The database 2 compilation	Analysis of the first year of research institutes, laboratories and investors. Clarifying plans. Contacts and influence local governance structures. The effectiveness of the system of licensing and marketing. Further research prospects of the system of nature.
Stage 3 Database 3 subsystem 3 2021-2025 yy	Sustainable economic development of the region. The system works licensing and control of the business. Business projects existing and a new perspective. Into investments. Foreign contacts. Development of an integrated database providing information management. The data base 3	Sustainable local market resources in the region, management of natural resources. Financing new resource areas. Economic development of the region with the participation of domestic and foreign investment.

**Conclusions.** Investigate the actual problem of improving management of ecological, economic and social security of the state objects of nature at the regional level with the use of modern information and communication computer technologies, including dynamic monitoring technology objects natural resource areas to study effective decisions in the management of natural resources. Determine the importance of resource security in the general system of economic security.

Recently, increasing worsening environmental problems on a global scale, productive new scientific and technological challenges and threats to the economic and social development of many national economies.

Gradual growth potential for conflict qualitatively new threats leads to finding adequate, safer ways and means of protection. From individual policy measures at the macro and macro levels in the system of standards of living «society-economy-environment» should immediately proceed to fundamental research problems of systemic nature, especially at the regional level, as is already deployed in many countries, including regional universities in the US, which experience significant and we studied.

**The scientific novelty and practical value** of the study is an innovative approach to the problem of improving the existing system of environmental-economic-social security state on regional (territorial) level environmental management system with the methodology for an effective administrative decisions in conditions of constant increase resource security threats to the state and the rapid development of information and communication computer education and innovation. Methods systematic approach, automatic and automated database management with information support continuous dynamic monitoring of objects using the possibilities of the Internet.

Performing research while relying on regional universities where you have a professional lab on specific areas of nature that will provide scientifically based recommendations and business management needs of users of natural resources, priority socio-ecological-economic security environment of the state.

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**Dynamic monitoring in anti-crisis management of state economic security.** This paper aimed at the problem of improvement the management system of economic security of natural use objects on a regional level using the organized digital dynamic monitoring for informational provision and justifying the options of efficient management decisions of operative and strategic importance by criteria of ecological, economic and social security.

Monitoring of the regional (territorial) natural objects provides constant systematic observation of the processes that take place inside of a “region-state” system and at world’s natural resources market. It needed to create the informational database for efficient management of a nature-use system.

We suggest plan of making the scientific and research institute in PoltNTU for conducting investigations based on continuous informational monitoring.

**Keywords:** monitoring, management system, ecological-economic-social security, natural use resources, algorithm, scientific and research institute, management decisions.

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**Ключові слова:** моніторинг, система управління, еколого-економічна безпека, ресурси природокористування, алгоритм, науково-дослідницький інститут, управлінські рішення.

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**Ключевые слова:** мониторинг, система управления, эколого-экономическая безопасность, ресурсы природопользования, алгоритм, научно-исследовательский институт, управленческие решения.