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System principles of implementation the effective social and environmental monitoring in Ukraine

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Abstract

The analysis of the basic principles of environmental monitoring and executive functions authorities of environmental monitoring system was made. The method of improvement the ecological environment monitoring by means of social and environmental monitoring was proposed.

Key words: environmental monitoring, system principles of environmental monitoring, performers of environmental monitoring, social and environmental monitoring, ecological safety.

Introduction

According to the Regulation “On the state system of environmental monitoring”, Monitoring System – is an open information system priorities operation of which is the protection of vital important ecological interests of man and society; preservation of natural ecosystems; prevent crisis changes in the ecological state of the environment and prevention of emergency environmental situation.

Law of Ukraine “On Environmental Protection” (p. 20, 22) provides the creation in Ukraine of state environmental monitoring system (SEMS) to conduct observations of the state of the environment, the level of pollution, the collection, processing, transmission, storage and analysis of information about the environmental situation, forecasting its changes and development of scientifically based recommendations for decision-making on the prevention of negative changes of the environment and observance of requirements of ecological safety.

Implementation of these functions entrusted to the Ministry of Ecology and Natural Resources of Ukraine and other central executive authorities, which are

subjects of state environmental monitoring system, as well as enterprises, institutions and organizations whose activity causes or may cause environment conditions worsening.

The basic principles of SEMS operations are specified in the Resolution of the Cabinet of Ministers of Ukraine of 30.03.1998 № 391 “On Approval of the Regulation on the State Environment Monitoring System”, namely:

- coordination of regulatory legal and organizational and methodological implementation, interoperability of technical, information and software implementation of its parts;
- systematic character of observations on the environment and technogenic objects that influence it;
- timely obtaining, complexity of processing and use of ecological information that comes and stored in the monitoring system;
- objectivity of primary, analytical and forecasting ecological information and efficiency of its delate to the public authorities, local governments, public organizations, media, population of Ukraine, interested international organizations and the international community [Resolution of the CMU № 391 1998: 2–3].

The main part

Currently, in the state system of Ukraine environmental monitoring functions and tasks of observations and information provision are performed 8 subjects the State Environment Monitoring System: the Ministry of Environment, the Ministry of Emergencies, the Ministry of Health, the Ministry of Agricultural, Food and Forestry Policy, the State Housing and Municipal Services Committee, the State Water Management Committee, the State Forestry Committee, the State Land Committee.

Each of the SEMS subjects monitors of the environmental objects that are specified by the Regulation on the State Environment Monitoring System and the procedures and regulations of the state monitoring of individual components of the environment.

Each subsystem at the level of individual subjects of the monitoring system has its structural and organizational, methodological and technical framework, and distributed by territorial principle:

- national level, covering the monitoring priorities and objectives throughout the country;
- regional level, covering the monitoring priorities and objectives across a region; and
- local level, covering the monitoring priorities and objectives within certain areas with high anthropogenic load.

The determining organizational and regulatory factor of improving the ecological monitoring is human society of a given territory, its intelligence and

work. Due to the fact that the structural components of socio-ecological-economic system (SEES) are the social, economic and ecological blocks in our studies, we used techniques of related fields of knowledge. In SEES functionally intertwined and interact all kinds of biological, ecological, geological, demographic, social, economic, technological, cultural, political and other processes. To implement reasonable management of and socio-ecological-economic processes will not succeed if do not analyzed them, don't studied their direct or indirect actions, don't systemized, don't generalized and don't reducing them in a particular functional models. Leading in the functioning of SEES is the economic block that reflects the nature and volume of material and energy exchange between society and Nature, between socio-economic bloc and its natural environment. Important indicators in this area are the number and types of industrial enterprises, their production capacity, volume and assortment of manufactured products, the level of maintenance of the population of local raw materials, the volume of imports from other SEES, types and amount of industrial waste that affect the state of the environment and human health the presence of treatment facilities, energy saving technologies, etc. [Нагорнюк, Собчик 2014: 20–21].

In order to effectively assess the functional state of the control SEES and regulatory measures are needed as data on population size, composition, movement of the population, the level of education, organization, employment in various fields, the level of spiritual development and ecological culture, civic activity, awareness of the problems of internal socio -ekologo-economic development and its functional dependence on the state of affairs in local (town), district, provincial, regional and state SEES. No less important are indicators of population health status, its relationship with the natural and production factors of agricultural activity, the level of anthropogenic pollution (degradation) of soil, surface water and groundwater, atmosphere and food products, the level of mental overload in agricultural production and in public life, the level of health care, wellness and recreational ensure.

Therefore, the main methodological approaches to the organization of social and environmental monitoring provided:

- social and natural, ecosystem integrity;
- systematically synergistic interaction;
- system integration;
- competence of civil servants, farmers;
- ecologization of full life cycle of agricultural products, agricultural technologies;
- optimization of land use;
- the State Regulation;
- natural (biotic) self-regulation;
- market self-regulation;
- public authorities, self-organization;

- mechanisms for joint action, cooperation, partnership;
- innovative mechanisms of ecologization agricultural production, nature conservation, the nature reproduction;
- mechanisms of European integration and international cooperation.

Guiding principles of general environmental monitoring should be supplemented, namely by:

- principles development of spirituality, moral principles, principles to overcome consumer philosophy of life and introducing new environmental paradigm;
- principles of social and environmental justice;
- principles of adequacy goals and tasks of balanced development (BD) accordance BD to Euro standards, competency BD management systems;
- the adequacy of the principles, goals and tasks education for balanced development (EBD);
- integrity, balance and preservation of the environment;
- balance of potential development of socio-ecological-economic system of different levels;
- enhance the efficiency of the scientific potential, scientific ecologically safe justifications and evaluations;
- subsidiarity, territorial socio-ecological-economic balance;
- prevent negative effects on the environment, quality of life and human health;
- the transition to environmentally safe and energy efficient technologies.

Conclusions

Therefore the aim of the socio-economic and ecological monitoring should be scientific and methodical, software and information, analytical and technological maintenance innovative methodologies of modern fundamental systemic studies and security settings and quality of socio-economic and ecological states, situations, processes, factors, territorial complexes and monitoring objects (at different levels of organization and functioning by types of nature use, kinds of social activity and other in evolutionary retrospect now and future) to create an operational mobile information and methodological basis of diagnosis, assessment, modeling and forecasting the state and development viability, sustainability, life safety, sustainable three-unity of socio-economic and ecological potential of civilization.

The task of eco monitoring studies is to establish priorities the development of socio-economic and ecological systems, assessment of natural resource potential and trends in socio-economic development of monitoring objects, diagnostics of priority socio-economic and ecological effects, their dynamics, intensity, orientation; formation of databases socio-economic and ecological monitoring by parameters and indicators of social, economic and environmental studies;

development of measures, mechanisms and technologies forming the sustainability of social activities, modeling and forecasting of objects of socio-economic and environmental monitoring, diagnostics socio-economic and environmental efficiency of the administrative and territorial management, development plans and programs for development of industries and economic sectors, predicting changes and prospects for the formation of ecological safety and security of society and nature, structural and systematic analysis of the quality of environmental components for standardized methods and standards of socio-economic and environmental management; providing justification sustainability geopolitical decisions.

Despite the fact that by its Resolution of 5.12.2007 № 1376, the Cabinet of Ministers of Ukraine approved the State Special-Purpose Program of Environmental Monitoring aims to combine the efforts of all the subjects of the monitoring system to exclude duplication and enabling advanced features of monitoring, creation of the unified monitoring network based on optimization of its elements and observation programs and improvement of technical, methodological, metrological and scientific operation of the single monitoring network, in Ukraine still are no mechanisms for its implementation. To ensure the integration of information resources, the subjects of the environment monitoring system Ministry of Ecology and Natural Resources of Ukraine provides for the establishment and operation of a single subsystem of automated collection, processing, analysis and storage of data and information derived from monitoring which is now extremely necessary for Ukraine's integration of information resources subjects of environmental monitoring system and ecological safety of Ukrainian and neighboring countries.

Literature

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