

4.3 ECOLOGICAL-INNOVATIVE MECHANISMS OF SOCIETAL SYSTEMS MANAGEMENT FOR ENSURING ECONOMIC SAFETY

The analysis of societality allows to give a qualitative characteristic of social life and formulate the main strategic directions in the policy carried out by government. In this regard, studying the societality of society, revealing of causes and forms of manifestation of crisisness, has theoretical and practical importance. The necessary condition for overcoming the ecological crisis is to overcome the crisis of the traditional, anthropocentric system of values. In order to develop an economic policy of making effective economic decisions it is important to know the ecological value of natural resources and services. Underestimation of ecological parameters distorts the measurement of economic development through traditional indexes of GNI, GDP, GRP, etc., the growth of which hides the degradation of the environment.

Reforming of the country's economy, its transition to market relations inevitably affected the sphere of nature management. Thus, to solve many economic-ecological problems one should use a new kind of human activity in the field of nature management, new social systems – societality of the system of sustainable development, the goal of which will be to satisfy the ecological-economic needs, the decrease of consumption of the natural resources and environmental damage, and the theory of government management, involving the basic concepts and principles. Every specific structural unit of the societal system is always a combination of the six components – economy, politics, sociology, ecology, ideology and culture. The structure of the societal system as a functional unity of the combination of elements, is regulated only by its inherent laws and regularities, and it has its own determinism. The societal theory as a system of principles and concepts, describing the emergence, composition, functioning and change of society.

The analysis of the latest studies and publications demonstrates that the issue of the societality of the society system does not include the ecological aspects, and when considering the sustainable development the problem of ecological government policy is absent. Therefore, because of its multiaspectness and interdisciplinarity there is a necessity to form a new concept uniting social-ecological-economic and political, ideological, moral directions into one societal system.

The development and implementation of the national strategy for sustainable development provides the strengthening of the ecological component of the economy, the harmonization of environmental, social and economic interests of society. The social-ecological-economic system, i.e. the sustainable development, may be considered as part of the societal or public system, which also includes the organization of political power, the complex of relations between society and government, characterizes the flow of political processes including institutionalization of power, the nature of political participation, moral and educational aspects, etc.

The societal system (from latin *societas* – community) – is a system of relations and processes considered at the level of society in general. The term "societal" was introduced by A.G. Keller, who attributed it primarily to the organizational aspects of social life. As a societal system, it is considered a social formation, which includes functional interaction of its main structures – economic, social, ideological, and political. T. Parsons, in his book *The System of Modern Societies*, regards the societal community as an integrative subsystem of society whose main function is "to determine the obligations arising from loyalty to the societal collective", and the highest position in the hierarchy of loyalties belongs to the cultural legitimation of the normative order; in other words, it is the core of the large society, integrated as a community based on socially approved values and norms [3]. In a broad sense, the object of societal sociology is society as an integral system. But in a narrower sense, its object is the integrated core of this society – the societal community. The societal theory as a system of principles and concepts describes the emergence, composition, functioning and change of society. The core of society as a system is a structured normative order through which the collective life of a population is organized. As an order, it contains values, differentiated and particularized norms and rules, and all must correlate with culture in order to be meaningful and legitimate.

Each of the structures of the societal system, as its complex, not only performs a certain function, but also in the process of relations with its other structures it gives this system a new (systemic) quality that is irreducible to the qualities of its elements. The societal system constantly reproduces the social quality of its structures. In this regard, economic, political, ideological, moral, social and ecological components should be considered as elements of one

system, and depending on what relations develop between them, a single structure of this system is formed. And in such system there are no separate economic or ecological or political elements, but there is a united system comprising such elements.

Whatever the forms of social production are, the natural and historical conditions of the life of society always remain its factors. But, being separated from each other, these factors (ecological, demographic and technological) remain factors of production only potentially. Human and technological factors combined form the productive forces of society, characterizing the relation of man to nature. The relations of people regarding possession, exchange and distribution of production products, are called economic. Only within these relations a relation of people to nature exists, and production takes place. Economic relations is the way people of a certain society produce means for life and exchange products between themselves (since there is a division of labour). The unity of the material elements of labour and economic relations forms the mode of production. This mode of production results in, firstly, a certain social-class structure of society, and secondly, a certain attitude of people to nature. Empirical observation must reveal, in each case, the connection between the economic, ecological and political structure with production.

Social-ecological-economic and political systems should be considered as parts of the societal system, and with this approach one can speak about the sustainable development of the country and society. With the transition to the system management of the national economy, an in-depth theoretical research of the complex of possible management levers is needed based on the study of the objective economic-ecological processes and actual commodity-money relations.

Taking into account ecological components, the societal system has a number of defining characteristics:

1. Integrity – necessarily includes a complex of connections or relations between the elements of the system;
2. Synerginess – a quality indicating that the system is not equal to the sum of its constituent elements, an arbitrary component of the system is considered together with its connections with the surroundings;
3. Structuredness – (the possibility to divide parts) – the structure of the system dependent on a certain order of relations, which can be identified and fixed. If the system exists, it is ordered, but as soon as it or its components, elements begin to interact with other systems and surroundings, then the structure of the system changes and, consequently, another (new) ordering occurs;
4. Partibility – a quality of the system to possess its inherent and corresponding only to it composition (set) of subsystems and parts;

5. Goal-orientation (or goal-setting, without a goal the system does not exist).
Functionality: the structure of the system and its functions should be considered in conjunction with the priority of the function over the structure;

6. Development – it is necessary to take into account the changeability of the system, its ability to develop, expand, replace components, accumulate information;

7. Orderliness – the structure of the system, dependent on a certain order of relations, which can be identified and fixed;

8. Principle of connectivity: an arbitrary component of the system is considered together with its connections with the surroundings;

9. Principle of modularity: in many cases in the system it is expedient to realize decompositions into components (modules) of different degrees of universality and to consider it as a set of modules and connections between them;

10. Principle of hierarchy: in most cases in the system it is expedient to realize a hierarchical formation and (or) ordering of its components by importance;

11. Principle of uncertainty: uncertainty and randomness must be taken into account when determining the strategy and tactics of the development of the system.

The structure of the societal system is a complex of stable relations between the main elements of the system (branches of government, public administration institutions and external to them surroundings), usually formalized in legislative acts, the tax code and other legal documents.

The differentiation of systems into simple, complex and large emphasizes that in system analysis not all, but complex systems of large scale are considered. In this case, the structural and functional (computational) complexity is accentuated.

There is no universally recognized boundary dividing simple, large and complex systems. However, it is noted that the term "large system" characterizes only one feature of complexity – the dimensionality of the system. In addition, complex systems are characterized by three main features: the property of stability and functional anisotropy – the inequivalence of the elements and ties of the system, the different organizational resistance and sensitivity to impacts, the asymmetry of the potential for functional and dysfunctional changes.

Complex systems have the property of stability – the ability to maintain partial operability (efficiency) when individual elements or subsystems fail. It is explained by the functional redundancy of a complex system and manifests itself when the degree of degradation of the performed functions changes, depending on the depth of the disturbing actions. A simple system may exist only in two states: full operability (working) and total failure (non-working).

In complex systems, in addition to a considerable number of elements, there are numerous and diverse (heterogeneous) connections between the elements. The main types of relations are the following: structural (including hierarchical), functional, causal (cause-and-effect, relations of truth), informational, and space-time relations. On this basis we will distinguish complex systems [7].

Taking into account that almost all systems belong to the class of multi-product (multi-goal) systems, one should consider simple (particular) goals of a system and compound (complex) ones.

The formation of goals is a complex and complicated process. One of the reasons for such difficulties is that between the goal (the abstract and final model) and the actual system there is no and can not be any one-to-one correspondence: to achieve a given goal, one can choose different means – systems (we will come back to this difficult point more than once); on the other hand, the given real system can be used for other purposes not directly envisaged during its creation (for example, it is worth remembering the classic example of hammering the nails with a microscope).

To a great extent the irrational and inefficient use of natural resources and the environment can be linked to the malfunctioning of markets, their defects or total absence. Prices formed in such markets do not reflect the true social costs and benefits of using resources. Such prices are misleading about the deficiency of resources and provide insufficient stimuli for the management, efficient use and conservation of natural resources.

Environmental management, setting as its main task meeting the constantly changing economic-ecological needs of consumers, reflects the ideology of modern entrepreneurship, aimed at finding reserves for gradual development and long presence in the market. The main goal of modern entrepreneurship is the search for reserves of reproductive development at all stages of the movement of the social product from factors to final goods and its constant presence in the market. Therefore, the consideration of ecological components in the societal system will contribute to the sustainable development of society.

The main criterion, by which one can judge the efficiency or inefficiency of the structure of a given system is the degree of its correspondence to the external environment. Thus, an efficient structure is a structure that allows the system to interact optimally with the external environment, meets its needs and challenges. Therefore, resource and environmental components are the connecting elements of the national economic and political complex of the country. Through the adoption of laws and bylaws, the purpose of which is to determine the rights of economic entities to environmental resources, a resource-environmental policy is implemented.

Societal development of society should be aimed at improving the quality of life of people (strengthening health, increasing life expectancy, obtaining the necessary education, guaranteeing freedoms, rights, etc.). Development should be realized in such a way as to provide equal opportunities to meet the basic life needs as for present as for future generations while preserving the environment.

Conservation of the nature should be an integral part of the development process and must not be viewed separately from it, economic development, fair development of the social sphere and environmental safety should be united into one, i.e. the principle of responsibility for future generations, the principle of equal opportunities for development and satisfaction of the needs of different generations. In today's conditions, within existing models of consumption, production, and attitude to the environment the further development of society is impossible. Responsibility to the future, in the transition to a model of sustainable development, becomes the basic life principle for every person.

There is a complex hierarchy of social systems that differ qualitatively between each other. A supersystem, or, according to our terminology, a societal system, is the society. The most important elements of the societal system are its economic, social, political and ideological structures, whose elements interaction (systems of less general order) institutionalizes them into social systems (economic, social, political, ideological, etc.). Each of these most general social systems takes a certain place in the societal system and performs (well, poorly or does not at all) strictly outlined functions. In its turn, each of the most general systems includes in its structure, as elements, an infinite set of social systems of less general order (family, work team, etc.).

With the development of society as a societal system, along with the mentioned, there arise other social systems and bodies of social influence on the socialization of the individual (upbringing, education), on his aesthetic (aesthetic upbringing), moral (moral upbringing and suppression of various forms of deviant behavior), physical (health, physical education), scientific and philosophical development. This organized system as a cumulative whole has its own premises, and its development in the direction of wholeness consists precisely in subduing all the elements of society or creating from it still missing parts. This way, in the course of its historical development the system becomes a wholeness.

The efficiency of the system is determined by its ability to keep the indicators when a part of the system is damaged. This index can be characterized by a relative number of elements (or relations), with the destruction of which the remaining indicators do not exceed the permissible limits.

In nature, in self-regulation contours any self-regulating system has, to a certain extent, an enclosed, localized, to some extent closed pattern (atom, molecule, cell, organism, population, solar system, etc.) and objectively (regardless of the desire and will of man) is determined by internal, immanent to this system regularities and sources (impulses) of existence, movement and development. A man has to learn the secrets of such systems and introduce them into his life only with an obligatory consideration of their patterns, forms and possibilities. Here, the subjective, conscious manifestation of man's will and influence is very limited.

Types of economic activities that damage the environment can be regulated through the introduction of a permitting system, which is a set of requirements for the quality of the environment, which are usually expressed through the maximum pollution indicators for soil, water and air basins. Normative indicators are defined in such a way that long-term average values of emission concentration can not be greater than short-term ones or be equal to them. Requirements for the quality of raw materials are determined by the maximum allowable concentrations of harmful substances in it. In the process of making decisions on the implementation of environmental projects that affect the nature, there should be provided the information on the economic side of their ecological effects. Comparison of losses and benefits will allow to make the right strategic decision. The cost of the environment can not be determined directly on the basis of prices and physical volumes that would appear in ecological deals. People do not buy or sell directly the quality of the environment. However, people's preferences regarding the environment can be determined indirectly, by examining their behavior in the markets, i.e. people prefer environmentally friendly goods, services, equipment and technology, as well as quality, environmentally sound living conditions.

An important cause of damage to the environment is the failures of politics. The list of market failures does not mean that the environment can not suffer from the actions of politics makers. Here are the following examples of the failures of politics:

- imperfection of the tax system in terms of granting benefits to nature users initiating the rational use of natural resources and protecting the environment, as well as tax incentives and subsidizing loans for agricultural producers, etc.;
- inefficiency of the financial mechanism for compensation of damages to the environment by nature users and an inefficient system of environmental fines;
- unsatisfactory legal discipline of nature users;
- bureaucratic obstacles to the establishment of rights to land ownership and one-sided land reforms that create insecurity of land ownership;

- low payment for the right to use natural resources;
- lack of cadastres of natural resources and territories, etc.

The political-economic-ecological system can be considered as part of the societal or social system that includes a complex of relations between society, government and the natural resource potential, including the institutionalization of power over environmental issues, the nature of political participation, and so on. Social-ecological-economic, political, and moral systems should be considered as part of the societal system, with this approach one can speak of a sustainable balanced development of the country and society.

1. Parsons, T. (1997). *The System of Modern Societies* / Trans. from English by L.A. Sedova and A.D. Kovaleva; Scien. ed. trans. M. S. Kovaleva; Institute "Open Society" – M: Aspect Press.
2. Sadchenko, E. V. (2015). Consideration of the ecological factor in societal systems for the purpose of sustainable development of society «Ukraine-Bulgaria-European Union: Current State and Perspectives»: a collection of reports from an international scientific conference. Volume 1. Varna-Kherson: Publishing House "Science and Economy", p. 341-249.
3. Sadchenko, E. V. (2015). Management of societal systems in conditions of innovative-environmental development of the society. *Scientific Journal of the International Humanitarian University. Series: Economics and Management: Coll. of science works*, 9, 32-36.
4. Sadchenko, E. V. (2002). *Principles and concepts of environmental marketing: Monograph*. Odessa: Astroprint.
5. Economic evaluation of projects and policies in the field of the environment. (1997), *Practical guidance*. – France: OECD (for the Russian version).
6. [Electronic resource]. – Access mode: <http://obmndoc.ru/files/users/ivanstudent/68/view/0-196456>.