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Structure of sustainable economic development in the globalization system

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Abstract

The article deals with the factors of sustainable development, ways to achieve the state of social well-being and social harmony, that provides a gradual rise in living standards and continuous modernization of productive forces while maintaining an acceptable quality of the environment and the ability of future generations to use natural resources and social opportunities. The author pays special attention to some problems of sustainable development, which are the subject of modern scientific discussions: the theory and methodology of determining the directions and content of the driving forces that guide society to sustainability, or ensure the promotion of social progress to sustainable development. Awareness of this interaction and mutual influence has led to the emergence of the concept of economic capacity of the biosphere – the maximum permissible anthropogenic impact on the biosphere, the excess of which translates it into a negative state and over time can cause irreversible degradation processes in it. The article considers the concept of ecosystem sustainability (ecological sustainability) – the ability of an ecosystem to maintain its structure and functional characteristics under the influence of external and internal factors.

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Keywords

Social requirements, economic security, sustainable development, progress, society.

Introduction

For the first time the term "production complex" was used N. Kolosovsky, which found combinations of production processes, repetitive, similar combinations of industries in different industries and regions. A key concept introduced N. Kolosovskiy in the theory of economic zoning, was the concept of "power cycles", which meant the whole set of production processes, carried out in the economic region on the basis of the use of a certain type of energy and available raw materials: from the primary stage of production and raw materials to obtain all kinds of finished products that can be produced in the region, based on the requirements of approximation of production to sources of raw materials and integrated use of all components of raw materials and energy resources of this type [Antonyan et al., 2014]. The combination of cycles and their raw materials and energy bases in the area forms, according to the theory of H. Kolosovsky, the territorial production core of the area.

As a result, the concept of territorial-industrial complex as a form of territorial organization of production was formulated. In the 1970s in the USSR there were such organizational forms of interaction of industrial enterprises as production and research and production associations, inter-sectoral scientific and technological complexes [Potanina, 2011, 223]. Thus, based on the provisions of the classical microeconomic theory, the goal of enterprises forming the production complex is integration. Naturally, the formation of production complexes is subject to certain laws and requires justification for their creation and operation within the regional industrial complex.

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There is the following definition of the natural resource complex – it is the natural resource potential of a certain integral territory. The hierarchical levels are the following:

– Elementary PKK – characterized by the unification of natural resources;

Neighbourhood PRK-complex of several highly effective elementary PRK;

– PRK – grassroots resource area;

– PRK of the regional region of the territory – combination of the majority of natural conditions and resources;

– PRK in a certain coherent territory – regional; – PRK country.

Given that the natural resource complex provides the livelihoods of all sectors of the national economy and largely determines the formation of the main financial and economic indicators of the country [Rostokinskii, 2007, 18]. That is why in the development of a long-term development strategy the key place is given to natural resource complexes.

It should be noted that the natural resource complex has characteristic features:

1. It is the bulk of generic resources, which are almost always in demand in the markets.

2. These products have a limited set of consumer properties, are fairly uniform in quality.

Therefore, further analysis of the theoretical and methodological foundations of the interpretation of the category "natural resource complex" should be carried out taking into account the following characteristics that are inherent in it.

Effective management of the natural resource complex is impossible without the assessment of certain types of natural resources and natural resource potential as a whole as an integral part of the national wealth of the country [Aidt, Toke S., Castro, Martins, 2018, 102].

It should be noted that the natural resource potential reflects the relations that have developed in the process of reproduction and use of natural phenomena and bodies – between the environment and

the production sphere. As well as natural resource potential is one of the main factors of social production and largely determines the economic and social development of the region, the complex. From the point of view of the system approach, the natural resource potential is the realization of one of the basic laws of the interaction of part and the whole system, the regularity of integrity (the property of emergence).

In this model, the problems associated with the development of the state and the transformation of economic relations in the Russian Federation are considered as a link in the continuous chain of civilizational evolution and take into account the fundamental nature of transformations in active systems to which society belongs [Atun, Resmiye Alpar, Hassina Nafa, Özlem Olgaç Türker, 2018].

In solving this problem, it is necessary to take into account that the socio-economic development of society, in our time is the final, but not complete stage of the evolution of the biosphere, subject to the General laws of self-organization of open active systems. Evolution is understood as the process of complicating the structure of the biosphere, it is realized by successive bifurcations, that is, a sharp (catastrophic) change in the state of the system when the control parameter reaches a critical value [Belitskaya, 2018, 9]. Control parameters can be, for example, climate change associated with changes in solar insolation, which, in turn, are associated with periodic changes in solar activity and the parameters of the earth's orbit (eccentricity, tilt of the earth's axis, the period of rotation of the Earth and so on.), the concentration of carbon in the atmosphere, etc.

Socio-economic, biological, ecological systems are usually characterized by a much greater number of control parameters than the physical ones, which greatly complicates the possibility of their dynamic modeling. Nevertheless, active systems with a huge number of objects, regardless of their nature (physical, chemical, biological, information, social, economic) have common features, which allows us to use analogies. First of all, the complexity of the structure is possible only in an open system and is accompanied by a decrease in its entropy. As for the biosphere as a whole, we are talking about reducing the entropy of chaotic solar radiation that reaches the Earth [Campagnolo et al., 2018, 115].

We must take into account that we are talking about global entropy. Local changes in entropy can be positive, that is, in the biosphere, local processes of randomization of structures are possible.

Another fundamental attribute of evolving systems is the presence of positive and negative feedback mechanisms. The first refers to the processes that strengthen and stabilize this structure. The second will include any phenomena that lead to the destruction (chaotization) of the structure. For example, for a thermal explosion, the role of positive feedback is played by the heat release from chemical reactions increases with increasing temperatures, and the role of negative feedback is the heat transfer from the system [Malyuga, 2017, 10]. In the case of their equality, there is a stationary flow of the process, if heat dissipation prevails – a thermal explosion occurs. In the case of nuclear transformations, the role of positive coupling belongs to the chain propagation of neutrons, negative – the absorption of neutrons on impurities and their loss by the system due to thermal motion.

Actually, biological evolution can not stop in our time, however, its global meaning is now closely related to socio-economic evolution.

So, social evolution, first through relatively slow race, tribe and other relations, led to the emergence of civilization about 5,000 years ago, as complex socio-economic structures, attributes of which became public governance with police, army, education, religion and others [Malyuga, 2019, 7].

Later there was a machine civilization with complex mechanisms and led to a significant increase in productivity, increase in social product. It stimulated the development of science, education, art, etc. Resulting in a complex socio – economic structure.

Then came the stage, which can be called "space civilization", the attributes of which is the human spacewalk, mastering the energy of nuclear reactions, the emergence of computers, lasers, etc. All these

innovations have significantly influenced the modern structure of society and its prospects [Antonyan et al., 2014].

Social progress is inextricably linked to an increase in the energy needs of society. Specific heat the effect of nuclear reactions in a hundred million times that of chemical combustion reactions have been used since the time of CRO-magnon man. This was a great qualitative leap in the progress of mankind.

The close connection of transformations in living and inanimate nature and society is evidenced by the inherent auto wave processes [Kostyuk, Rostokinskii, 2012, 67]. Examples of such waves of the combustion wave and detonations, wave fission and fusion transformations in physics waves Zhabotinsky-Belousov in Chi, MIA , nerve impulses aksonam and muscle in myocardial biology , "Kondratieff long waves in the economy ; and the waves of epidemics and many others.

Authomatic process is a fundamental feature of all processes in the Universe and testifies to the unity of the laws, they are subject to processes in animate and inanimate nature and in society. The whole chain of interrelated processes in nature and society proves that globalization is an expected and predictable state of the human community (modern society) [Potanina, 2014, 170].

Let us turn to the analysis of positive and negative relations in the economy and society, because only if there is a balance between them in society (state) is possible a "normal" evolutionary process, that is, its progressive development. In the social structure, the role of a positive relationship will give the state structure with all its inherent attributes. At the same time, the linear strengthening of this connection means, first of all, an increase in the state, especially the administrative apparatus, which is characteristic of modern Russia. Nonlinear amplification implies improvement of the management structure itself, including Informatization, level of training, reduction of corruption, etc. [Rostokinskii, 2011, 135]. Democracy will play the role of a negative link, because only in the presence of an effective democracy can generate new ideas, models, real control and criticism of the actions of the authorities. It is from the "ideological chaos" that the natural selection of the most optimal solutions arises, taking into account the constant changes in the control parameters. As the last for the state can be considered the world situation, relations with neighbors, energy and resource opportunities, changes in the level of education and science, the emergence of fundamentally new technologies, etc [Anantharaman, 2018, 120].

In the economy, the role of positive feedback plays planning, negative – the market. For the development of "normal" processes in the economy of countries freed from totalitarianism, it must be planned-market, combining monetarist and Keynesian approaches. The ratio of determinism to free market in developed countries ranges from 40/60 to 60/40. In Russia, it reached 15/85, which raises doubts about the possibility of evolutionary development of its economy. Breaking the reliability of feedback, the "element" of the market becomes no less destructive to society than rigid determinism, and this makes it impossible to sustainable development of society [Becchetti Cermelli, 2018, 69].

The main objective reason for the collapse of the USSR can be considered a clear imbalance between the positive and negative relationship. The Soviet economy, which was almost 100% planned, was an example of ignoring feedback, that is, market relations, which are most easily adapted to changing conditions. This made it inert and finally led to stagnation and subsequent collapse.

In public relations, one-party system, uniformity of ideology, suppression of dissent led to the preservation of social and political science, made it helpless in the ideological struggle in the "cold war" and the global confrontation between the two socio-political systems. And this at a time when humanity was already in the phase of cosmic evolution. The situation when the feedback in society is broken, and democracy is only declared, always ends badly.

Let us now return to the key issue of the sustainable development of society. First of all, we emphasize that society is an open system [Bluszcz, 2018, 93]. With regard to the state, this means the

free exchange (within reasonable limits) of information, Finance, goods, labor, etc. This, along with the presence of a balanced positive and negative feedback, makes it possible to quasi-equilibrium state of the socio-economic structure of the state for a long time in the mode of self-support. Otherwise, the structure can exist only in the mode of rigid management and limited time, because it will necessarily, play processes that return the system under these conditions in a state of equilibrium, and for society it will result in the destruction of old forms of existence and the emergence of new ones.

For equilibrium systems of biological origin, the most typical description is the normal (Gaussian) distribution. For biological systems, the quasi-equilibrium is due to the free exchange of genetic material. Naturally, for social systems it can only be a question of approaching normal distribution. However, by making some assumptions and accepting that the most important socio-economic characteristic of the structure of society is the function of the distribution of its citizens by income, it can be shown that for the "normal" social and economic structure of society it is necessary that about 68% of the population belong to the middle class. This distribution is inherent in the economies of Sweden, Japan and a number of other developed countries. It is possible to prove that only a significant layer of the middle class contributes to the sustainable development of society in all directions [Gribust, 2018, 19].

Conclusion

Ensuring the transition to sustainable development involves the formation of coordinated actions in all spheres of public life, the corresponding reorientation of social, environmental and economic institutions of the state, state regulation in order to strengthen the interest of citizens, legal entities and social groups in solving the problems of sustainable development.

For the Soviet model of economy was unambiguously not equilibrium, and its stability could be maintained only at the expense of rigid distribution system. Not much better, from the point of view of the balance of socio-economic structure of the Russian Federation. There are no conditions for the creation and development of the "middle class" as a stabilizer of the economy. At a high level of disequilibrium in the society, economy development may be maintained due to stringent power control [Malyuga, 2017, 5]. Hence, an exorbitant staff of managers at different levels (civil servants with a large number of benefits), a staff of law enforcement agencies, which is several times higher than the armed forces of the state, enormous corruption at all levels of government, about 60% of the shadow economy, imperfect legislation (especially its executive functions), the degradation of science and education (who needs educated citizens in such a situation?) vol. As for democracy, which should provide negative feedback, without which social progress is impossible and which not only provides, but also ensures the rights and freedoms of citizens, it is actually enjoyed by a small group of people who own money and security. In political terms, the position of the Russian Federation, from the point of view of synergy, can be described as chaos: the war of all with all – the president, parliament, political blocs, etc.

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Структура устойчивого экономического развития в условиях глобализации

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Аннотация

В статье рассматриваются проблемы устойчивого экономического развития, пути достижения состояния социального благополучия и социальной гармонии, обеспечивающего постепенный рост уровня жизни и непрерывную модернизацию производительных сил при сохранении приемлемого качества окружающей среды и возможности использования природных ресурсов будущими поколениями. Автор уделяет внимание основным вопросам устойчивого развития, являющимся предметом современных научных исследований нашего времени: теории и методологии определения направлений и содержания движущих сил, которые ведут общество к устойчивости или обеспечивают социальный прогресс и

устойчивое развитие. Осознание этого взаимодействия и взаимовлияния привело к появлению концепции экономической емкости биосферы – предельно допустимого антропогенного воздействия на биосферу, превышение которого ухудшает ее состояние и с течением времени может вызвать необратимые деградационные процессы. Рассматривается понятие устойчивости экосистемы (экологической устойчивости) – способности экосистемы сохранять свою структуру и функциональные особенности при воздействии внешних и внутренних факторов.

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Ключевые слова

Общественные потребности, экономическая безопасность, устойчивое развитие, прогресс, общество.

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