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Article

Organizational and Economic Foundations of Ensuring Environmental Safety in the Sustainable Development of the Regional Economy

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Abstract: This article reveals the organizational and economic foundations of ensuring environmental safety in the sustainable development of the regional economy and the ecological aspects of the sustainable development of the regional economy, the concept of sustainable development, the goals and objectives of the development of a particular territory and the ways to achieve them, as well as the possibility of achieving regional economic sustainable development through the development of a regional ecological and economic sustainable development concept. The concept of economic and ecological sustainable development of the region is studied as an effective solution to existing social, economic and environmental problems in the regions, improving the living conditions of the population, and the effective use of natural resources. This, in turn, creates a need to adapt various strategies, concepts, target programs and roadmaps developed and implemented for the development of the country's economy and its regions to the SDGs, to identify emerging problems and determine the next steps in achieving national goals and objectives of sustainable development, with a deep systematic analysis of the results achieved. The need to develop a concept of ecologically and economically sustainable development of regions in Uzbekistan requires the ecologization of production in the regions, the transition to a "green economy" of entire economic sectors. Taking the above into account, the author proposes a concept of ecologically and economically sustainable development of regions of Uzbekistan.

Keywords: regional economy, sustainable development, development of international economic relations; development of the world economy.

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1. Introduction

The sustainable development of the regional economy is based on the existence of economic and political associations and alliances that have a significant impact on the development of countries with common socio-economic, scientific and cultural potential and seek to develop solutions to universal problems.

It should be noted that the division of the territory into large regions or areas that generalize several administrative-territorial units within the country gives rise to the term “economic region”. This expresses approaches to a holistic region that includes natural conditions and resources common to the region, the level of development of socio-economic development and productive forces, quality of life indicators of the population and other problems.

At the same time, the “sustainable development of an economic region” is closely related to the efficient use of existing natural and economic resources, ensuring the harmonious

development of agricultural and industrial sectors, improving production and market infrastructure networks, and solving socio-economic and environmental problems.

The development of the national economy is a system of measures implemented taking into account the reasonable contribution of each region. Therefore, the national economy develops depending on the system of factors affecting the general situation of the regions. The need to develop a concept of ecologically and economically sustainable development of regions in Uzbekistan requires the ecologization of production in the regions, the transition to a "green economy" of entire economic sectors. Taking the above into account, the author proposes a concept of ecologically and economically sustainable development of regions of Uzbekistan.

2. Materials and Methods

The study of green economy and sustainable development issues in economic literature covers a relatively recent period. Although the study of these issues by foreign scholars began much earlier, we see that the study of these issues by foreign and domestic scholars began in the recent past.

In the article “Economic and ecological aspects of sustainable development of regions of Uzbekistan”, M.T. Adilova covered the essence of the concept of “Sustainable development”, the main directions of sustainable development of regions, the impact of atmospheric air pollution on the ecological state of regions and their division into zones according to their ecological state, the formation of a strategy for sustainable development of regions taking into account ecological aspects and the transition to a “Green economy”. She gave ideas on the formation of a strategy for sustainable development of regions taking into account ecological aspects[1].

Karimov Dilshadbek's article "The essence and advantages of the rating system in analyzing the socio-economic development of the republic's regions" presents scientific and practical considerations on the effective use of the socio-economic potential of regions in ensuring the sustainable development of the national economy and its competitiveness, the importance and advantages of the rating system in forming indicators of regional economic development, increasing the efficiency of economic decision-making based on a comparative and comprehensive analysis of the levels of regional development in our country, as well as further improving economic policy aimed at the development of regions[2].

In the research process, scientific methods of studying economic event processes were used - systematic analysis, generalization, grouping, observation, logical and comparative methods of analysis, abstract-logical thinking, comparative analysis, SWOT analysis.

3. Results and discussion

In recent years, the independence of regions, which are increasingly responsible for the results of economic development, is increasing. The socio-economic situation of regions is determined by objective (macroeconomic conditions, the position of the region in the social division of labor, industrial structure, geographical location, natural resources) and subjective factors - regional management methods. In such conditions, the search for new ways and decisive factors for self-development for the region is becoming more urgent. The tasks of self-development for the region provide for the cooperation of the population, the state and capital.

The concept of the growth stage theory is effective in analyzing issues of sustainable development of the regional economy. It takes into account three stages of economic development (pre-industrial, industrial and post-industrial). The “pre-industrial” stage of economic development is based on the presence of dominant (mainly dominant) sectors of the region - extractive industry, agriculture, fishing, forestry and mining. At the “industrial” stage, processing industries - mechanical engineering, chemistry, forestry and woodworking, light and food industry, etc. dominate. At the “post-industrial” stage, intangible production sectors based on economic development are formed - science, education, trade, finance, insurance, healthcare and other innovative and investment activities. In the post-industrial region, the knowledge intensity of production and the

level of skill of employees increase, and the development of production is at the international level.[3]

The general directions of development of the national economy are based on the economic development of each region and allow for a comprehensive assessment. This allows us to divide the country into “pre-industrial”, “industrial”, “post-industrial” regions, and various measures are applied taking into account the specific characteristics of the region.

Of course, the development of the national economy is associated with the resource endowment of the regions that make up the country and their significant differences, the structure of the regional economy and the level of development of various sectors. Therefore, in the development of the national economy, on the one hand, goals and objectives are generalized for a certain stage of regional development, and on the other hand, balanced directions for the economic development of regions are developed. In general, measures for the economic development of a particular region are a general direction for achieving national goals.

In our opinion, there is no region in which all sectors are equally developed. Industry, which is considered the main sector of the economy, is also unevenly developed in the regions of Uzbekistan. As a result, the difference between the levels of socio-economic development of the regions has increased even more. Therefore, reducing the differences in the level of socio-economic development of regions and revitalizing the development rates of lagging regions are among the constantly pressing tasks.

Analysis of issues of sustainable development of regional economies is of great importance in assessing their contribution to the economic development of the country. In its place, such an analysis is carried out from the perspective of identifying the internal potential of each region and serving to realize these potentials. In order to objectively assess the current state of sustainable development of the regional economy, it is necessary to consider their history and the formation of the system of sectors.

The position of the country's regions can be assessed by their territory, population and economic indicators. Each region in the country differs from each other in its natural and demographic potential, the sectoral composition and level of development of its economy, and its participation in foreign economic relations.

At the same time, the concept of inclusive sustainable growth is developing. Its main provisions are based on a strong link between economic growth rates and solving a wide range of social problems. In particular, the issues of fair distribution of income generated in the country, special attention to vulnerable segments of the population have been studied since the 1980s.[4]

In general, the sustainable development of the region's economy essentially represents the growth of social indicators, the ability to fully satisfy needs, and the elimination of socio-economic problems. Thus, the sustainable development of the region's economy covers political, economic, environmental and social spheres. This requires improving the well-being of the population, ensuring dynamic growth of economic indicators, maintaining a stable balance between supply and demand, developing expanded secondary production and rational use of the economic potential of the region.

At the same time, the issues of sustainable development of the region's economy are becoming increasingly relevant in connection with the concept of "sustainable development". This involves preventing environmental pollution, resource depletion, and restoring the ecological potential of the planet for future generations. Therefore, attention to global problems began in 1962 with the adoption of the UN General Assembly Resolution on Economic Development and Nature Conservation. In 1972, a conference was held in Stockholm. After 1983, the Brundtland Commission (International Commission on Environment and Development) was established in Norway.[5]

The concept of sustainable development in the 1950s was based on the ecosystem approach and formed controversial theories related to human civilization. Sustainable development demonstrated the need to form a new economic system. This poses a challenge for countries. Because it is necessary to take into account the environmental factor due to the limited potential of natural resources and environmental pollution. For the first time, the global scale of the negative impact of human activity on the environment, the impossibility of sustainable economic development in isolation from the quality indicators of the environment, was scientifically recognized. This theory caused widespread public discontent at the international level, and some countries approached sustainable development from the perspective of international cooperation.

Since the 1960s and 1970s, the human-induced environmental degradation has reached a global level. Climate change, air pollution, ozone depletion, depletion of fresh water and ocean water pollution, land pollution, soil erosion, loss of biodiversity, and other changes have been observed in all countries of the world. At the same time, as a result of global economic development, the anthropogenic impact on natural ecosystems has significantly increased (6 times over the period 1950-2000). Due to the loss of natural ecosystems, environmental problems have reached a new level.

The concept of sustainable development is based on the definitions given by the Brundtland Commission. In this regard, ensuring sustainable socio-economic development of the economy is associated with the development of humanity in interaction with the environment. Modern management is required in the social, ecological and economic system.[6]

In addition, in 2000, the UN General Assembly adopted the Millennium Development Goals, and 2015 was set as the year to measure the achievement of the goals. At the UN Conference on Sustainable Development "Rio+20" held in 2012, world leaders agreed to develop Sustainable Development Goals (SDGs). These goals are included in the agenda for implementation by all UN member states in 2015-2030. The Sustainable Development Goals program includes 17 global goals and 169 related targets: 1) poverty eradication; 2) ending hunger; 3) health and well-being; 4) quality education; 5) gender equality; 6) clean water and sanitation; 7) affordable and clean energy; 8) decent work and economic growth; 9) industrialization, innovation, infrastructure; 10) reducing inequality; 11) creating sustainable cities and comfortable living conditions; 12) responsible consumption and production; 13) combating climate change; 14) preserving marine ecosystems; 15) preserving terrestrial ecosystems; 16) peace, justice and good governance; 17) cooperation for sustainable development.[7]

Of course, the above sustainable development goals consist of economic, social, and environmental indicators aimed at meeting human needs and serving to create a prosperous lifestyle for everyone. The source of meeting human needs is nature.

Therefore, the UN's sustainable development conditions are based on the formula "social progress + economic growth + environmental security = sustainable development".[8]

Achieving sustainable development is achieved by coordinating three key elements – economic growth, social inclusion and environmental protection. These elements are interrelated and crucial for socio-economic progress.

It should be noted that the sustainable development of any country and region is determined primarily by its compliance with the globally recognized development models.

In this regard, regional sustainable development is associated with the elimination of crisis situations in the economic, social and ecological spheres. In such conditions, it is relevant to determine the priority areas for the development of existing sectors in the region. For example, at the current stage of economic development, sustainable development is impossible without taking into account environmental factors. Therefore,

when developing the concept of sustainable economic, social and ecological development of the region, it will be possible to ensure the interaction of the following factors (see Table 1).

Table 1

Factors of sustainable development of the region[8]

Economic	Social	Ecological
Sustainable economic development opportunities	Possibilities of ensuring the necessary level of consumption and social harmony in society	Possibilities for achieving sustainable functioning of the biosphere
Production efficiency and high scientific and technical level	Increasing the workforce based on skills and working conditions	Environmentally friendly technologies and restoration of previously degraded ecosystems
New technological solutions and new equipment	Ensuring the required level of production efficiency and safety	Ensuring minimal environmental impact
Evaluation of proposed technologies and equipment according to economic criteria	Social assessment procedure	Environmental impact assessment procedure

It should be noted separately that one of the most pressing problems related to environmental safety is the "greenhouse effect". On the one hand, this is due to the increase in the concentration of greenhouse gases in the atmosphere, which is formed as a result of burning fuel, energy and natural resources in places of extraction, on the other hand, the gas composition of the air is changing due to deforestation and land degradation. According to estimates, over the past 150 years, the amount of carbon dioxide in the atmosphere has increased by 30 percent, and its accumulation every 40-50 years has led to an increase in the temperature of the Earth by 2-4 degrees. This leads to the melting of the Antarctic ice sheets and, as a result, to a rise in sea level and flooding in a number of coastal zones.[9] At the same time, it is worth noting that there is another point of view, according to which climate warming increases the concentration of carbon dioxide in the atmosphere. The possibility of anthropogenic influence on climate change is increasing.[10] The depletion of the ozone layer due to the release of a number of gases into the atmosphere, primarily hydrocarbons, is also an acute problem. Thus, about 40% of hydrocarbons are emitted into the atmosphere of the United States, 40% into the countries of the European Union, 10% into Japan, and less than 8% into Russia. Hydrocarbons penetrate into the upper layers of the atmosphere, destroying the ozone layer and creating the so-called "ozone hole". Its area is currently approximately 5 million km2. The depletion of the ozone layer is one of the factors contributing to the increase in the number of cancer diseases, which negatively affects the standard of living of the population and the quality of labor resources.[11] In general, climate change leads to an increase in the frequency and intensity of extreme climatic events (droughts, floods, tornadoes, anomalous heat and cold, and other natural phenomena).

The problem of protecting groundwater and surface water is primarily related to the provision of drinking water, irrigation, industrial and municipal services. Freshwater resources are limited worldwide. Currently, countries located in regions with low rainfall and areas with high humidity are also experiencing water shortages.[12] The main cause of water shortages is the withdrawal of water for municipal and domestic needs, and the pollution of water bodies with industrial, transport and municipal water flows. In particular, rivers, streams and canals flowing through agricultural areas are heavily

polluted by the flow of fertilizers and pesticides.[13] Soil washing from agricultural areas leads to the shallowing and disappearance of small rivers. The importance of this problem is that the cleanliness of large and small rivers is one of the main conditions for the cleanliness of the world's seas and oceans. According to estimates, overfishing has led to the extinction of about 25 species of fish. The decrease in the assimilation capacity of living organisms associated with the pollution of the world's seas and oceans threatens to change the oxygen balance on planet Earth and intensify the problem of the "greenhouse effect".[14]

In conditions of limited land resources, solving the problem of soil fertility is of particular importance and is directly related to food security. Today, the problem of soil protection and rational use has two main directions. First, it is to protect soil fertility and preserve productive areas for the needs of agricultural production. Second, the possibilities for further increasing soil fertility and developing additional land resources are almost exhausted. The use of mineral fertilizers is changing the composition of the soil, which creates the problem of poisoning of soil and living organisms. At the same time, large areas of fertile land are being used for construction, roads, recreation areas, and mineral extraction. The harmful effects of transport on soil pollution in cities and along major highways are becoming increasingly severe.

Thus, it can be noted that sustainable development, as a strategic direction of the development of human civilization, is a response to global problems arising from environmental degradation, increasing socio-economic disparities between countries and regions, increasing poverty, and a number of other reasons.

In our opinion, the theory of sustainable development is a logical continuation of ensuring environmental security, according to which humanity bears responsibility for the state of the environment on the entire planet.

Sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”[15] At the same time, not only environmental, but also social, economic, political, and other needs of humanity were considered. In our opinion, the report of the Brundtland Commission highlighted the main features of sustainable development as a concept of the existence of humanity on Earth. They can be defined as follows: the consumption of natural resources should not exceed the limits set by the parameters of the natural environment of our planet.

4. Conclusion

In conclusion, it should be noted that of all the problems facing the global community, sustainable development is one of the most urgent. The problems of sustainable development are of great importance for local science, since maintaining the dynamic balance of the regional socio-ecological and economic system guarantees the safety, stability, reliability and integrity of the development of countries and regions. At the same time, at present, the scientific and theoretical level of the concept of sustainable development, both in countries and globally, is insufficient for its practical application. The main problem here is the lack of proven scientific solutions aimed at creating an economy that is fully compatible with environmental protection.[16]

In this regard, it is very relevant to consider concepts that define and complement the principles of sustainable development, but nevertheless do not contradict it. A good example of such a concept, in our opinion, can be the concept of ecological and economic balance of regional development. Ecological and economic balance involves the implementation of the socio-economic development of the region within the carrying capacity of its ecosystems, without exceeding the anthropogenic load on them. This is achieved through the level of technologies used in the economy of the region, which is characteristic of local ecosystems. The natural condition for such changes is a

corresponding change in the institutional environment and the network structure of the regional economy. In general, the ideas of ecological and economic balance are close to the concept of sustainable development, but require the development of many tools, methods and mechanisms for implementing the concept at the regional level.

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