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AZERBAIJAN'S STRATEGY FOR THE DEVELOPMENT OF A GREEN ECONOMY

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Abstract: The article indicates that the conditions of transition to a green economy, with commodity production, can positively affect the health of the population and negatively affect environmental pollution. It also explores the main aspects of the concept of economic development, which is the main factor influencing the provision of a green economy. On the other hand, the events organized by the State of Azerbaijan in this direction are noted, with an agreement with new companies on new "green projects" related to hydropower, hydropower and wind energy. The principles and stages of the green economy are also revealed. As a result, the features of the development of the green economy in Azerbaijan have been identified. In the article, the author notes that with the possibility of applying new principles in the use of economic and ecological resources in developing countries, progress is very slow, and the main reasons for these rates are revealed. The reasons for the slow pace of application of new economic or environmental principles are the facts that require government intervention in this area of the economy. The author also notes that in some developing countries there are no such events, and there is also a special resistance from the lobby in the fuel and energy system. Since the owners of oil and gas companies are doing everything possible to stop the process of "greening" in the country. And to do this, these companies must give up their expected profits, which they receive.

Keywords and phrases: Concept of economic development, green economy, strategy, projects, principles, applied measures.

1 Introduction

During the period of human activity, regardless of their desire, they cause irreversible and enormous damage to the environment. So, until recently, people lived and worked on the principle of "after us, even if there was a flood." Fortunately, people today tend to change the trend of their activities according to this principle in a positive way. Therefore, the countries of the world have realized that the transition to a green economy is a key factor, and support the emergence of appropriate measures on the part of the state in the direction of its development. All this is direct proof that the world is undergoing a process of transition to a green economy.

The Green economy is a new model of economic development aimed at forming a responsible human attitude to natural (economic and environmental) resources, making the most effective use of them and preventing environmental pollution that interests them. The green economy model is aimed at finding and determining the most effective compromise option between improving the well-being of the world's population and preserving natural resources. In other words, the green economy focuses on solving a compromise between people's desires and capabilities [9].

The economic development that occurs as a result of transformation in the civilized world is accompanied by the implementation and steady growth of all types of production and consumption. During the half-century period following the period of civilization before 1950, more products were produced on the basis of improving the welfare of the population. The production of products that meet this demand, along with meeting the growing demand of the world population, marked the beginning of the transition to a green economy [8]. Thus, the rapid development of commodity production means a positive impact on improving the well-being of the world's population, and a negative impact on environmental pollution (ecology). As a result of calculations, it has been established that more than 10 million hectares of forests are destroyed by humans annually in the world. And to balance this process, the process of creating new forest

strips in its place is carried out either very poorly or is not drained by all States at all. The rate of carbon dioxide emissions into the atmosphere from the production of new and demanded goods and the use of vehicles is also increasing. At the same time, the release of plastic substances and waste from construction products to landfills in large volumes has also repeatedly led to pollution of the environment with waste in excess of the norm. Humanity will face a great environmental threat if the civilized world does not pay attention to the process of environmental pollution. Therefore, in the current conditions, the implementation of measures aimed at jointly solving the problems of sustainable development with a green economy is one of the main tasks facing each country.

2 Objectives of the concept of economic development in Azerbaijan

The concept of economic development was developed on the basis of the goals of finding and implementing a compromise option through mitigating the contradictions between the preservation of the ecological environment, including natural resources, and economic growth. When defining the goals of the concept of economic development, three axioms were mainly used, which include:

-It is impossible to expand the sphere of influence indefinitely within a limited space;

-Land resources are limited, which means that an increase in human consumption will sooner or later lead to their depletion;

-All the processes taking place on earth are interconnected.

Many countries of the world that are seriously interested in environmental safety issues have developed and started implementing a number of economic measures aimed at combating negative anthropogenic impacts that cause serious damage to the environment. Western Europe, South Korea, the United States, China, etc. are among the countries at the forefront struggling with negative anthropogenic impacts. In Azerbaijan, the State has taken and continues to take appropriate measures to prevent environmental pollution and solve problems related to the conservation of natural resources. Among these measures, it is possible to note the announcement of December 25, 2023 by the Decree of the President of the Republic of Azerbaijan of 2024 in Azerbaijan as the "Year of Solidarity for a Green World". In accordance with the decree, one of the priority issues of socio-economic development until 2030 and, most importantly, "a country of clean environment and green growth" has been identified. Based on these priority issues, work is being carried out in our country in an appropriate sequence to improve the environment, create green spaces, restore parks and expand existing ones, ensure the effective use of existing natural water resources and newly created energy sources. This also gives reason to confidently ensure its development, although it lags behind developed countries that are leading in the development of the green economy [1]. It should be noted that on the basis of the territories liberated from occupation, which had been occupied by Armenian vandals for many years (about 30 years), the Decree of the President of the Republic of Azerbaijan dated 07.07.2021 redistributed economic regions and created the Karabakh and East Zangezur economic regions, as well as, after this Decree, the Karabakh and East Zangezur economic regions and Nakhchivan The Autonomous Republic has been declared a green energy zone. Extensive monitoring is being carried out in Jabrayil, Zangelan, Fizuli, Gubadli districts and adjacent villages belonging to the East Zangezur Economic Region in order to identify environmental terrorism and spread its consequences around the world.

Based on the monitoring conducted with these territories, it was established that as a result of the environmental terror committed by the Armenians, 10 hectares of forest lands were looted, great damage was done to the natural landscape and biological diversity of the region, and hundreds of natural monuments were purposefully destroyed. One of the main conditions for priority in the direction of environmental protection is considered to be a large-scale restoration and reconstruction process on a par with the stages of the "Great Return" carried out in these liberated territories. In these places, a "smart city", a "smart village", etc. are being created. Based on the introduction of innovative approach models, the ecosystem of the territory is being restored and the transition to a green economy is being phased out [10].

The creation of various types of green energy and its transportation to world markets within the framework of the "Year of Solidarity for a Green World" is one of the main priorities in

the energy policy of the Republic of Azerbaijan. Thus, Azerbaijan has set a goal to produce electricity by emitting renewable energy sources, to bring the share of this type of energy to 30

3 Principles and stages of the green economy

As part of the implementation of various aspects of the environmental program adopted by the United Nations in 2011, four of its basic principles were identified [1]. The principles of the mentioned program include:

the principle of efficiency and sufficiency -this principle implies limiting the exploitation of land resources at a harmless level in order to restore natural systems. In this case, states are interested in the introduction of low-carbon and resource-saving technologies, maintaining stable production and consumption;

the principle of well-being (peace of mind)- This principle provides for special attention to the social and economic well-being of the population. At this time, there is a need to revise the criteria for the level of well-being of the population. Thus, since the level of GDP (gross domestic product) does not take into account the impact of the environment, it is not considered a suitable tool for optimal assessment of the level of well-being;

the principle of good governance - this principle requires that the economy be "transparent" and accountable. Thus, responsibility for environmental damage is distributed among all countries based on the ratio of impacts. The economic system is expected to be based on environmental standards adapted to the cultural characteristics of different countries;

the principle of a healthy planet - this principle determines the investment of states in the restoration of natural resources (ecology) and the preservation of natural diversity. Thus, the motto of the new system of this planet should be: "we did not inherit the earth from our ancestors, we borrowed it from our children". Today, no one doubts the need to switch to a new economic model in order to achieve economic development. However, this transitional model must be carried out with caution and under the necessary conditions. If this condition is not foreseen, the world will face great financial losses and socio-political problems in addition to the environmental disaster that has occurred [2]. The transition to a new economic model can be carried out in four stages using the example of environmental initiatives implemented by the European Union:

Reduction of production investments that will damage the environment;

Introduction of a high level of tax burden on "dirty" industries (high-carbon industries);

Increasing financial support for "green" industries;

Reducing production methods that consume too many resources.

4 The concept of a green economy and sustainable development

The use of the concept of "sustainable development" began in 1987 after the publication of the report of the UN International Commission on Environment and Development. This report reflects a set of measures aimed at meeting the needs of people without harming the environment [3, p.58].

Sustainable development can be achieved by maintaining a balance between three main components: economic growth, social responsibility and environmental balance. Thus, the main task of the green economy is to maintain a balance and smooth out existing contradictions by combining these three components.

The UN General Assembly (2015) ecology and development within the framework of the program identified 17 priority areas, including economic (poverty eradication, hunger eradication, industrialization, innovation and infrastructure formation, achieving decent work and economic growth, ensuring responsible production and consumption, reducing economic inequality), social (ensuring the consumption of clean energy water, achieving environmentally friendly and affordable energy, combating climate change, protecting terrestrial ecosystems, conservation of marine ecosystems) and environmental (improving human well-being and health, achieving quality education, eliminating gender inequality, ensuring peace, justice and an effective institution, ensuring urban security, ensuring international partnership in the interests of future generations) [9].

In our opinion, active support of international initiatives in the field of sustainable development by all sectors of the economy is considered important. For example, in Azerbaijan, within the framework of the banking sector, attempts are being made to popularize the process of approach and promote the current agenda in the country, contributing to solving the most important economic, environmental and social problems.

5 Conclusion

The greening of the economy and its sustainable implementation in Azerbaijan has begun in recent years. Thus, our country has rich natural resources, including oil, cotton, etc. Therefore, the process of importing these types of products without processing them should be gradually reduced. And this requires that both state and industry institutions, private enterprises, etc. should be involved in achieving a green economy at the maximum level. They must work from the heart. It should also be noted that in some "green" areas, Azerbaijan did not lag far behind, even took a place among the countries in its respective ranks. For example, hydropower plants, the share of electricity produced by wind power has increased in recent years, and this growth amounted to about 20%.

Energy production in Azerbaijan for 2015-2022 is shown in Figure 1.

The analysis of statistical materials shows that the production of thermal energy in 2022 increased 2.17 times compared to 2015. The highest growth in the compared period was in wind energy 18 times and in solar energy 13 times.

Based on the presented data for a certain period, a regressive model of energy development in Azerbaijan has been developed, which can be predicted further development using the following formula:

$$y = 51.736x + 2003.5; R^2 = 0,7973.$$

In the eight months of 2023, 35 hydroelectric power plants in Azerbaijan have a capacity of 1,308 MW, 8 wind farms, three of which are hybrid, have a capacity of 66.4 MW, two bioenergy stations, one of which is hybrid, have a capacity of 37.7 MW, and 13 hybrid solar power plants have a capacity of 281.9 MW. In addition, the total power generation capacity of Azerbaijan is 8320.8 MW, and the capacity of renewable energy power plants, including large hydroelectric power plants, is 1687.8 MW, which is 20.3% of the total capacity [12]. In the whole country, electricity generation by hydroelectric power plants increased by 2% (to 26.5 million kWh) compared to the same period last year and amounted to 1.282 billion kWh [11].

As a continuation, relevant work is being carried out in the field of increasing energy potential, for which, by Decree of the President of the Republic of Azerbaijan dated September 22, 2020 (No. 1159), the State Agency for Renewable Energy Sources (GAVIE) was established under the Ministry of Energy of the Republic of Azerbaijan. It should be noted that Azerbaijan is among the countries with high potential of renewable energy sources. For example, the technical potential of these types of energy resources in our country is 135 kW on land and 157 GW at sea. Based on the assessment, it was determined that the economic potential of renewable energy sources is 27 GW, as well as 3,000 MW of wind energy, 23,000 MW of solar energy, 380 MW of bioenergy potential and 520 MW of mountain river potential [12].

A number of leading global companies (Masdar, ACWA Power, BP, China Gezhouba Group Overseas Investment, Total Energies, Nobel Energy, A-Z Czech Engineering, etc.) have been working in Azerbaijan since 2020 to implement projects in the field of renewable energy sources.

In 2023 (October 26), within the framework of cooperation with the UAE, Masdar commissioned the largest solar power plant in the Caspian region and CIS countries, Garadagh Solar Power Plant with a capacity of 230 MW. This is the first industrial-scale solar power plant built with the involvement of foreign investments in the amount of 262 million US dollars due to the costs incurred. Due to the generation of 500 million kWh of electricity at the plant, 110 million m3 of natural gas will be saved, and the amount of carbon dioxide emissions into the atmosphere will be reduced by 200 thousand tons. The power plant has an area of 550 hectares, where 330 kW substations were built to connect the station to the electric grid with the installation of 570 thousand solar panels [12].

According to the preliminary analysis carried out on the project, compiled on the basis of" The Roadmap for the development of the use of offshore wind energy in Azerbaijan", the total

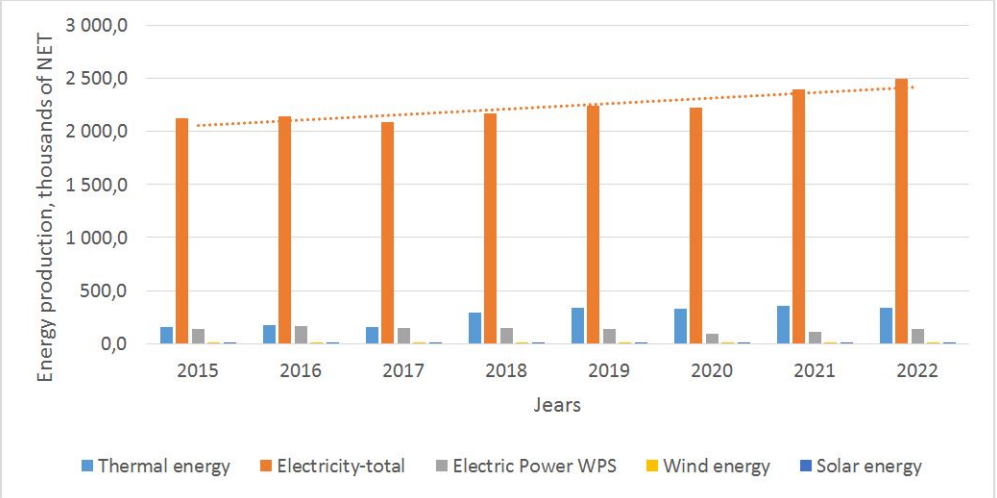

Figure 1. Energy production in Azerbaijan for 2015-2022 (Source: Based on [13] compiled by the author)

technical potential of wind energy in the Azerbaijani part of the Caspian Sea was estimated at 157 GW, with 35 GW in shallow basins and 122 GW in deep basins.

6 Conclusion

Thus, the possibilities of introducing new environmental principles in developing countries are still moving very slowly. This slow progress has a number of reasons. This area requires serious government injections (interventions), which in a number of countries government intervention simply does not exist [5-6].

Another obstacle is the presence of resistance from the fuel and energy lobby. Thus, the owners of oil and gas companies are in no hurry to give up their profits and are doing everything possible to stop the process of "greening". Even in this direction, countries and companies that hinder the growth of energy production in Azerbaijan and its promotion to the markets of Europe and other countries are trying to hinder this development.

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