

The Impact of Various Factors on the Sustainable Development of Kyrgyzstan in Modern Times

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Abstract: This article examines the influence of various factors, on the sustainable development of modern Kyrgyzstan, as well as the importance of applying new theoretical approaches to the analysis of the development of modern society, improving traditional methods for the study of the relationship between human and society, economy and nature. And today the key development factors for all countries of the world are the preservation of nature, the institution of the family, and ensuring the sustainable development of society, where priority is given to the development of the individual, public safety, and multiculturalism. This research material analyzes the current problems of Kyrgyzstan and the need for its transition to sustainable development. In Kyrgyzstan, the National Strategy for sustainable development of the Kyrgyz Republic and its basis the National Development Strategy of the Kyrgyz Republic, where the important priorities of the country's development were outlined. This concept of development of Kyrgyzstan proposes a new model for the development of society, identifies the prospects for its development, and sets important priority tasks to address the critical socio-economic problems of the country. The main priority is the free development of people, and civil institutions, ensuring the well-being of citizens in all spheres of life and others.

Keywords: Bifurcation; Biosphere; Coevolution; Demography; Digitalization; Ecology; Energy Conservation; Energy Efficiency; Geopolitics; Globalization; Identification; Nature; Needs; Security; Society.

JEL Codes: Q01; Q56; Q00.

1. INTRODUCTION

The relevance of the research problem is related to the fact that humanity has faced an aggravation of contradictions between the growing needs of humans and society on the one hand, and the inability of the biosphere, without destruction, to ensure the balanced development of society, on the other hand. Various changes are taking place in the modern world:

- anthropogenic pressure on the Earth's biosphere, contributing to changes in global climate and demography (Bachtaev et al., 2017; Komilova, 2021);
- globalization of the economic sphere, the emergence of new geopolitical realities in the world and in the region, which have negatively affected the state of national economies, caused strong migration processes, changed family relationships, and destroyed the traditional way of life, environmental and social balance in the country (Mazurenko et al., 2020; Anatoliy, 2021);

- the spread of digital transformation, which covered the main spheres of social life and sectors of the global economy (Yu et al., 2022).

It should be noted that modern natural cataclysms are caused primarily by the vulnerability of human and the world as a whole to global problems, both environmental and social (Kalenska et al., 2021; Komilova et al., 2021). And all of them put before sciences about society, economy and nature a problem of new world understanding, global processes which became the reason for growing high dynamics of internal and external migration, cardinal changes in family relations, family education set difficult and, in fact, unconventional tasks to provide sustainable development of modern society (Karabalaeva, 2013; Hickel, 2019). So modern scientists in this regard note that "humanity has come to a bifurcation point, characterizing the uncertain and critical state of the social system, when the need to ensure orderly self-organization of society, involving a rational choice of the further path of social development" (Prigogine and Stengers, 1984). In relation to the above, it should be said that it is necessary to change the trajectory of development of society around the world to a new way of life, to a new innovative thinking, to a new kind of natural and social relations. And this new development is called sustainable develop-

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ment, which was given a classic definition by Norwegian Prime Minister Gro Harlem Brundtland: "Sustainable development is a development that meets the needs of the present generation and does not threaten the needs of future generations" (Report of the World Commission..., 1987). It should be noted that this definition has a high philosophical meaning, which traces the measure of human consumption of natural and human resources, leaving hope for the consumption of resources for future generations. But with globalization, with the growth of scientific and technological progress, environmental and, as a consequence, social and economic problems have become more acute.

The world community faced the problem of mankind's survival since the traditional scheme of interaction between nature and society has not justified itself, where the dominant factor of progress was considered economic development, thus destroying the balanced unity of nature and society. In their time, scientists actualized this problem as the impact of humanity's anthropogenic pressure on nature. The philosopher Protagoras, in his dictum "Man is the measure of all things", mentioned that man must know his role and place in the world; other scholars have also come back to this theme (Mark, 2012). And it reminds every human individual, who is a man and what is the essence and meaning of his life? In this situation, the whole world community faced the problem of forming a new strategic model of development, because to solve this problem, one state will not be able to solve the urgent problem, this problem of all countries, regardless of economic and social development. This is a global problem, where nature and societies will develop in a co-evolutionary community and where the needs of both the present generation and the future will be met (Hryshchuk et al., 2020). Kyrgyzstan in the global world is no exception and like all countries of the world is experiencing instability in the development of society in all spheres of development (economic, political, social, cultural), which may subsequently lead to its final degradation. In this regard, Kyrgyzstan faces the priority task of building its own model of successful development of society in the future, based on spiritual, moral, and natural human values, while preserving the people's identity and unity.

2. MATERIALS AND METHODS

An important role in writing the work was played by statistical data, which described the state of all the main components of sustainable development in Kyrgyzstan. They were mainly used from Internet resources, such as the official website of the National Statistical Committee of the Kyrgyz Republic (2022). In addition, an important role was played by the works of other scientists, which described the peculiarities of sustainable development in Kyrgyzstan in certain sectors. The work used a significant number of reports, allowing one way or another to assess the global and national principles of achieving sustainable development goals. In particular, such documents include the Report of the World Commission on Environment and Development (1987), the National Development Strategy of the Kyrgyz Republic for 2018-2040 (2018), the National Strategy for sustainable development of the Kyrgyz Republic for the period 2013-2017 (2013), the Johannesburg Declaration on Sustainable Development (2002) and others. The Statistical compendium of

sustainable development goals in the Kyrgyz Republic 2014-2020 was particularly important (2021). Its specific feature is that it has a brief excerpt on the achievement of sustainable development goals by the country for all seventeen components. Based on the statistical and descriptive data in the work, it is possible to form a fairly clear trend in the achievement of sustainable development goals in the country, as well as to highlight the main problems and successes in its achievement.

A significant number of research methods were used in writing the study. Among them, it is worth noting the historical-logical method, which was used to form conclusions about the development of Kyrgyzstan in the past in all areas of society from the perspective of national-historical characteristics of Kyrgyzstan and through the prism of mentality and traditionalism. An important role in writing the article was played by induction, which allowed for assessing the overall state of achievement of sustainable development goals in Kyrgyzstan on the basis of individual factors in different areas, such as education, ecology, and others. Abstraction made it possible to assess the impact of various factors on individual sustainable development goals (or individual sectors of Kyrgyzstan's economy). The method of deduction was used to a lesser extent and mainly to find the causes of the state of a particular sustainable development goal in the country.

The entire work can be divided into several main stages of research. The initial stage of the study examines the current achievements of the country in reaching the goals of sustainable development in various areas, in particular – education, ecology, energy, and others. This part of the work is especially important for understanding the principles of formation of the subsequent policy of Kyrgyzstan in achieving the goals of sustainable development. In particular, in order to describe the main achievements in sustainable development, data from the Statistical compendium of sustainable development goals in the Kyrgyz Republic 2014-2020 are used (2021). The second stage of the work describes the features of the national strategy of Kyrgyzstan to achieve the goals of sustainable development, and the basic principles of its conduct. At the end of the work a brief conclusion about how effective the achievement of sustainable development goals in the country and how the situation can be improved.

3. RESULTS AND DISCUSSION

Economic indicators of Kyrgyzstan, for example, the level of Gross Domestic Product (GDP) per capita is increasing every year. So, before the war between Russia and Ukraine, it was expected that GDP growth in the country would be about 6.5%; new forecasts so far differ and say figures from -1.2% to 2% (2022). In addition, the country has recently seen relatively low levels of inflation and unemployment (National Statistical Committee..., 2022). All of these indicators point to the country's economic stability. This growth is related to the full transition from the socialist methods of functioning of the country's economy until 1991: the redistribution of collective and state power led to a decrease in the level of the population in general, but was a necessary condition for the transition to the capitalist principles of economic structure and improved long-term results (Agadjanian and

Gorina, 2019; Mestre, 2019). However, these achievements are poorly combined with the ecological state of the external environment in the country.

In addition to economic indicators, the nature of its territory greatly affects the opportunities for sustainable development of the country. It is known that the geographical position of Kyrgyzstan is not the most favorable, as the rugged terrain occupies about 60% of the state, and only 40% is more or less suitable for economic activity and agriculture (Karpouzoglou et al., 2020). Indeed, it creates a peculiar and beautiful fauna, the preservation of which is one of the main goals of sustainable development and should become an important component of the state policy of the country (Hickel, 2019). Unfortunately, already now a significant part of Kyrgyzstan's land is subjected to excessive and senseless use, which leads to its degradation. The natural environment is used without regard for control, which leads to its degradation. "According to expert estimates, over 75% of the country's territory is now at increased risk of degradation of natural capital" (National Development..., 2018). Therefore, the exhaustion of the natural environment is created.

In order to assess how effectively the Sustainable Development Goals are being implemented in Kyrgyzstan, it is worth looking at some of the data behind the individual Sustainable Development Goals. Note that all statistical information described below was taken from the Statistical compendium of sustainable development goals in the Kyrgyz Republic 2014-2020 (2021). Thus, the poverty eradication goal managed to reduce the number of people below the poverty line from 1.68 million to 59.2 thousand people. Nevertheless, the number of people living in poverty is still high. In terms of eliminating starvation, the country is deficient in certain types of food in relation to average physiological standards of consumption. Such resources include meat, eggs, sugar, fruit, and others. This makes the problem of nutrition in the country still relevant. The official unemployment rate in the country reaches 5.8 percent, compared to 8.1 percent in 2014. Most of the population is employed in the informal sector and only 18.3% in agriculture; there is also a significantly higher unemployment rate among the female population. In terms of the income distribution, there is significant inequality in the country, characterized by a Ginny index of 0.344. In addition, there is a clear outflow of the population, which has remained at about the same level since 2012. In terms of health protection, there has been a steady decline in most types of diseases, as well as a mortality rate of children under the age of 5.

The problem of school education remains urgent since a large number of children still have deficiencies in grammar and mathematics. Nevertheless, 90% of the population has higher education and about 72% of citizens have free access to the Internet, which is a good indicator in perspective for the development of science and the achievement of sustainable development goals in general. In terms of equality and empowerment of women, there are mixed trends, characterized by a simultaneous increase in the number of women leaders and a decrease in the share of women in the Jogorku Kenesh, despite their active role in politics. There are also some problems with the safety of the female population, as only 54% of women feel safe in the dark, while the propor-

tion of men here is much higher – 76%. Urban development also has some difficulties and shortcomings, which is characterized by a small proportion of areas of plantations and areas of massifs in settlements and low satisfaction of the local population with the development of villages (Getman et al., 2019; Komilova et al., 2020). However, there is a positive trend of increasing the area of state nature reserves and parks, which is a positive sign of environmental development, although only 5.6% of the country is covered by forests. The state is not safe in terms of frequent cases of various kinds of natural disasters: several thousand houses are located on the territories potentially dangerous for life, which once again shows the role of quality urban development to avoid these disasters (Komilova et al., 2019; Sydykova et al., 2020). Perhaps there should be a government program to relocate families from unsafe areas.

Thus, the country as a whole is experiencing positive trends in achieving sustainable development. It is true that there are some difficulties with individual goals, but if the current dynamics are maintained and the state pays more attention to these problems, their solution in the future is more than realistic. Let us now consider the role of sustainable development in specific areas of the economy. Let us begin with the agricultural sector. The role of sustainable development in it is due not only to the fact that the sector as a whole is one of the main components for achieving the goals of sustainable development (Hergeh, 2020), but also to the fact that the industry plays a leading role in the economic wealth of Kyrgyzstan, creating about 40% of its GDP (Zhunusova, 2017). The interrelation between the agricultural sector and sustainable development is that the sector is completely affected by natural and climatic conditions in the year of harvest: thus, there is always the risk of drought or other cataclysms that can significantly harm farmers (Bautin et al., 2008; Batsmanova et al., 2020; Tsapova et al., 2021). This is a reason for entrepreneurs to find ways to smooth the impact of uncertainty on the production process. The authors of the article believe that the implementation of the principles of sustainable development is one such method. It is worth noting that after the country's transition to a more decentralized and market-based system of public administration, new reasons for land degradation were announced (Kerven et al., 2012). As noted by scientists C. Dear, J. Shigaeva, B. Wolfram (2013), due to the collapse of the Union, the capacity of local research institutions was undermined, which did not allow to improve the quality of land; international institutions also do not provide sufficient assistance to the country in this matter.

As scientists point out, the main reason for the low level of agricultural development in the country is the lack of investment in the industry; A.T. Gyyazov (2016) finds the reason for this historical reluctance of investors to invest in this industry. In fact, such statements do not sound convincing enough due to the fact that when investing in the industry, investors are globally guided by only two factors: profitability and risk (McNamara and Bromiley, 1999). Therefore, globally there can be only two reasons for not investing in the agricultural sector of Kyrgyzstan: too low returns or too high risks. Each of these disadvantages can be reduced by using government intervention: for example, by issuing loans or additional guarantees for investors when investing (Lencucha et al., 2020). Other scientists who study the pecu-

liarities and problems of the development of the agrarian sector in the country generally come to the same conclusions (Zhantemirov, 2011). Water in Kyrgyzstan is one of the important natural resources, which means the well-being of the country. As already mentioned, it is the availability of its own water resources that distinguishes Kyrgyzstan from other Central Asian countries. But the use of water resources is not effective, because a lot of losses occur during transportation (Shcherbak et al., 2007). Such indicators are water losses during water intake – about 30% for 2006-2010; in 2020, this figure was about 25% (Statistical compendium of sustainable..., 2021). A large percentage, about 93%, is used in agriculture for irrigation and water supply. Due to these indicators, it is necessary to address the creation of mechanisms for energy conservation and energy efficiency both in production and at the household level (Niyazbekova et al., 2022). Therefore, Kyrgyzstan's transition to the path of sustainable development is necessary and timely.

Another important goal of sustainable development is to achieve the maximum amount of energy created from renewable energy sources, such as solar, air, land, and others (Niyasapoh et al., 2022). The prospects of using renewable energy are described in detail in the work of E. Baybagyshov and N. Degembaeva (2019), in which scientists argue that the country has significant potential for the development of some types of renewable energy, in particular solar and geothermal. This is caused primarily by the geographical location of the country and its mountainous terrain. Taking into account the difficult situation in the energy sector of Kyrgyzstan, it can be concluded that the introduction of a greater share of renewable energy in production could significantly improve the situation in the sector, primarily due to a significant reduction in price and increase in energy independence of the country (Mehta et al., 2022; Orazbayev et al., 2022; Shinwari et al., 2022). It should be noted that new sustainable development projects are regularly launched in Kyrgyzstan. One such project was conducted in Naryn; about the success of its adoption in his work written by K. Cieslik, A. Dewulf, and J.M. Foggin (2022). Scientists believe that the doctrine of sustainable development will allow the project to achieve significant success in its further implementation and operation. A large number of projects in sustainable development at the moment are adopted in the sectors of energy and agriculture (Tyliszczak et al., 2009; Niyazbekova et al., 2021).

Increasing the level of education in the country is another important component of sustainable development (Olsson et al., 2021; Li et al., 2022). Thus, in the framework of the National Development Strategy of the Kyrgyz Republic for 2018-2040 (2018), the goal of "Creating a basis for quality learning, focused on results" was formed. Achievement of this program implies the formation of the only educational standards (curricula) for the new generation, which could significantly improve the level of education in the country. Education systems must have clear expected results from students in order to be able to assess their effectiveness, must prepare the young person to achieve success, teach the principles of achieving the goals of sustainable development, etc. Although in 2015 the Ministry of Education and Science of

the Kyrgyz Republic made an attempt to introduce new learning standards, it is worth recognizing that so far, the traditional approach to learning dominates in the country (Rozhdestvenskaya and Korotenko, 2021).

Let us now examine the features of the Kyrgyz program to achieve the goals of sustainable development. Kyrgyzstan's commitment to sustainable development was the fact that on November 24, 2012, the National Council for Sustainable Development under the President of the Kyrgyz Republic was established. Kyrgyzstan took part in the World Summit (June 20-22, 2013) on Sustainable Development "Rio+20: Choosing the Future We Want". Kyrgyzstan spoke at the summit with its own position "Kyrgyzstan's position on Rio+20", prepared by various agencies. Based on the results of the "Rio+20" Summit in 2013, the National Strategy for sustainable development of the Kyrgyz Republic for the period 2013-2017 (2013) was developed and approved by Presidential Decree. The National Strategic Program for Sustainable Development united the society of Kyrgyzstan to solve urgent problems in the state and society. The focus of the program is a person his quality of life, and well-being. But the tasks set in the National Strategy for sustainable development of the Kyrgyz Republic for the period 2013-2017 (2013) were partially fulfilled in the social, economic, and environmental spheres. On the basis of this program for the further development of Kyrgyzstan, a plan and program were adopted: National Development Strategy of the Kyrgyz Republic for 2018-2040 (2018), where it is necessary to form a new model of development of the country. In the focus of the program, the main attention is paid to the person, the disclosure of his potential, and ensuring the well-being (Sarybayev et al., 2021). To achieve the goals of sustainable development, the program "Taza Koom" (Clean (Transparent) Society) was adopted in which young, educated, highly moral citizens, responsible for the future of the country, will be allowed to manage the state. Kyrgyzstan's National Strategy 2018-2040 articulates basic principles in all spheres of society. The main priorities of the country are:

- a strong state, where the main attention is paid to the individual with all his opportunities for quality development in all spheres of society;
- great attention is paid to the family as the foundation of the unit of society and as the basis for the development of spirituality, upbringing, and education;
- education as the main priority in the strategic development of society;
- the coexistence of economy and nature;
- the Great Silk Road as a digital hub, connecting the information and communication links of the West and the East;
- the creation of fair justice, without corruption;
- achieving, through sustainable development, the energy security of the country, increasing energy efficiency in the operation of power plants in the country, and attracting new investments for local hydro-power (National Development Strategy..., 2018);

- effective conservation of the unique natural ecosystem and the development of biodiversity;
- development of the industrial sector, and industrial technologies, providing the national workforce not only in manufacturing but also in the scientific sphere of exact sciences;
- Kyrgyzstan will become a supplier of ecologically natural products from different regions of the country this contributes to the development of the regional market;
- development of the country's tourism industry through the "Great Silk Road" as well as internationalization of tourism through the "One Belt, One Road" project;
- the development of tourism in Kyrgyzstan is an important cultural and sports event "World Nomadic Games", which allows it to be a kind of brand and preserve its image in the world tourism market;
- ensuring national and regional security;
- stimulating the development of innovative technologies in Kyrgyzstan, including through the National Program of Digital Transformation "Taza Koom" (National Development Strategy..., 2018).

Despite the significant number of difficulties in achieving the goals of sustainable development in Kyrgyzstan, it can be clearly seen a positive trend in their achievement in many aspects, from the social to the ecological. In the author's opinion, in order to make the policy of achieving sustainable development goals more effective, it is necessary to take the idea of sustainable development beyond the borders of state authorities to the local population and entrepreneurs. Therefore, if the goals of sustainable development become something like the national idea of the country, and entrepreneurs will be rewarded with additional bonuses for certain successes in achieving the goals, it can significantly improve the situation of the country in this matter, and therefore improve its ecological, economic and social condition. Given the potential described in the National Development Strategy of the Kyrgyz Republic for 2018-2040 (2018), it can be assumed that all the goals set within the concept of sustainable development will be achieved.

4. CONCLUSIONS

The work analyzed what progress the country has made in terms of achieving Sustainable Development Goals. It was shown that these trends may differ depending on the specific goal. For example, the trends in improving environmental protection can be called successful, but in the context of the social security of citizens, the trends are not so successful. However, the general trend of achieving the goals of sustainable development in the country is positive. Within individual areas of the economy, the most promising for the achievement of sustainable development are the energy and agricultural sectors.

Many countries are now solving the problem of development in various areas, such as: economy, nature conservation,

dissemination of their own cultural assets and many others. Kyrgyzstan is trying to keep up with the latest trends, that is why various renewals, plans for development and improvement of the situation in the country are being created. All these actions are taken in order to be on the same level as the leading countries of the world, to create proper conditions for the residents of Kyrgyzstan now and in the future. In the article, the authors showed that the main factors of sustainable development in Kyrgyzstan are the natural factor as the basis of sustainable development, as well as sociocultural and economic factors. Therefore, the main components of achieving sustainable development in the country should be: the preservation of the natural ecosystem, improving the work of state institutions (in particular – reducing corruption and improving the quality of the courts), and improving the standard of living in the regions, in particular – through the development of medicine, education and urban infrastructure.

Another important factor for achieving the goals of sustainable development is the cultural identity of society, which makes it a task of the political elite to ensure linguistic, historical, and ethnic unity in order to avoid xenophobia or ethnocentrism. The most important modern document for achieving sustainable development goals in Kyrgyzstan is the National Development Strategy of the Kyrgyz Republic for 2018-2040. According to the authors, the principles and advice described in it are reasonable, and the goals set are realistic for their achievement. Probably, they can become a qualitative indicator for the formation of the country's policy in achieving the goals of sustainable development. Relevant for future research in this area is the analysis of implemented or ongoing projects in the field of sustainable development in Kyrgyzstan on how effectively they are implemented and what benefits they can bring to society and the state.

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