



Sustainable Development Goals and Green Economy Indicators

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Abstract: In terms of importance among recent UN conceptual documents, the UN Sustainable Development Goals (SDGs) for the period 2016-2030, which are formulated in the 2030 Agenda for Sustainable Development (hereinafter referred to as the 2030 Agenda), stand out 165 They are not only reflect the ideology of sustainable development and balance social, economic and environmental priorities, but also stand out in terms of instrumentality. After difficult work, the UN adopted 17 Goals and 169 targets for their implementation. Taking into account Russian realities and interests, it is important to single out priority socio-environmental and economic aspects in each Goal. The Sustainable Development Goals and targets are comprehensive, global in nature and universally applicable. In doing so, they ensure that differences in national realities, capacities and levels of development are taken into account and that national strategies and priorities are respected. The targets are formulated in the form of recommendations of a global nature, with each government setting its own national targets, guided by global wishes but taking into account national conditions. Each government, or more precisely the political elite and society of each country, decides how to ensure that these global challenges are taken into account in the form of recommendations in national planning processes, measures and strategies. In developing the SDGs, it is important not only to recognize the links between sustainable development and relevant processes in the economic, social and environmental fields, but also to set an integrated agenda that would receive long-term support.

1 INTRODUCTION

Adaptation of the UN SDGs in the Russian context is expedient at the regulatory and program levels. Scientific, methodological, informational, financial support for the adaptation of the SDGs is important (Babina, 2020). Now, the Federal Law of June 28, 2014 N 172-FZ “On Strategic Planning in the Russian Federation” acts as a regulatory and legal basis for the development of long-term documents, which determines the achievement of strategic goals and the solution of priority tasks of state policy in the field of socio-economic development and national security. Strategic planning documents developed as part of goal-setting at the federal level include the Strategy for the Social and Economic Development of the Russian Federation, the National Security Strategy of the Russian Federation, and the Strategy for Scientific

and Technological Development of the Russian Federation. It seems that this list can be supplemented by the Strategy for Sustainable Development of Russia until 2030. This Strategy can be developed and built into the system of strategic planning in the Russian Federation, which corresponds to both the need for balanced socio-ecological and economic development, and international obligations of the country (Lapaeva, 2019). Strategic planning documents developed within the framework of goal-setting according to the sectoral and territorial principle at the federal level, it is also advisable to supplement the SDGs, which are interconnected at the sectoral and territorial levels. This will contribute to the implementation of the Strategy for the Spatial Development of the Russian Federation and the Strategy for the Socio-Economic Development of

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Macro-Regions, provided for by the Law on Strategic Planning (Gakaev, 2019).

To successfully adapt and achieve the SDGs, it is necessary to ensure the participation of governments at all levels, but the local level is especially important. Partnerships are critical to achieving the goals, many of which are best formed at the local and regional levels. Of great importance is horizontal and vertical coordination, covering various areas of policy and levels of government management (Murtazova, 2021), but the achievement of goals and control over this process must also involve various stakeholders. In particular, the private sector plays a special role. Successful achievement of the Sustainable Development Goals requires the mobilization of sufficient public and private resources (Gakaev, 2018).

In most countries, goals and related targets are linked to action plans that clearly link to budgetary processes and resource allocation. The comprehensive and ambitious nature of the 2030 Agenda highlights the importance of high-quality, accessible, up-to-date and reliable disaggregated data in assessing progress and ensuring that individual pressing issues are not left out of the picture. The statistical community is taking action to achieve the Sustainable Development Goals at the national, regional and global levels. Discussions center on issues such as the functions and limitations of official statistics, cooperation between policy makers and statistical authorities, statistical capacity building, and coordination and collaboration between different actors. In January 2017, the first UN World Data Forum was held, which was attended by producers and users of statistical information. During the Forum, the launch of the global action plan for the production of data in the field of sustainable development was announced. In March 2017, the UN Statistical Commission approved a list of global SDG indicators, and also adopted a draft resolution on the mechanism for data exchange at the national and global levels.

2 RESEARCH METHODS

Let's consider a possible approach to the development of long-term environmental goals and objectives based on the SDGs and indicators adapted for Russia. The corresponding seven SDGs have been highlighted above (Gakaev, 2018; Vladimirov, 2019). The authors did not aim to modify and adapt all the indicators proposed by the UN for the environmental component of the SDGs - as noted above, there are

more than two hundred of them in total, and the share of environmental ones is significant. It is assumed that Rosstat will carry out such a large-scale work to adapt the SDGs to Russian realities and present the results next year. Now in the world in the field of developing various kinds of indicators, along with the development of a complete set of indicators, the approach of key / basic indicators (key / core indicators), the number of which is limited, is used. In accordance with this approach, priority indicators are allocated for a specific goal, task or problem, which facilitates monitoring and control by the executive and legislative authorities, the public, and business. This chapter uses this approach to narrow down the range of targets and indicators for environmental SDGs based on what the authors believe are key indicators that are relevant to Russia and available in Russian statistics (Vladimirov, 2019).

Goal 6 aims to provide the population with safe and affordable drinking water and sanitation, the rational use of freshwater ecosystems, which is necessary for human health, environmental sustainability and economic prosperity. Access to clean drinking water was included in the system of Millennium Development Goals - Goal 7 of the UN MDG. The corresponding indicator estimates the proportion of the population that has constant access to a source of quality drinking water in urban and rural areas. Adapted for Russia, taking into account the available statistical data, is the indicator "share of the housing stock provided with running water (urban, rural)". It seems appropriate to keep this target and indicator in the list of key SDG targets and indicators for Russia in order to ensure the continuity of the MDGs and the SDGs and monitor this indicator over a long period of time.

According to the forecasts of the International Energy Agency (IEA), the demand for energy in 2020 will decrease by 5% (Molchanova, 2019).

At the same time, oil consumption will decrease by 8%, coal - by 7%, natural gas - by 3%, and electricity consumption from renewable energy sources will increase by 1%. The main reasons for the positive trends in renewable energy during the general downturn are the low operating costs of RES and the priority access of RES-based power plants to the grid. According to World Bank estimates, oil prices fell by 30% in the first three quarters of 2020. In 2019, a barrel of oil cost an average of \$61. At the end of 2020, it is expected that its average cost will be \$41, and in 2021 - \$44. Gas prices recovered after the spring decline, especially in Europe. At the end of October, they were only 5% below the pre-pandemic

level (Egorova, 2020). Coal prices remain low - 25% lower than before the introduction of the self-isolation regime. According to World Bank expectations, gas prices will recover in 2021, while coal prices will remain at current levels. Despite attempts to diversify the Russian economy over the past decade, the fuel and energy complex still plays a crucial role in Russia's development (Vladimirov, 2019). The World Bank estimates that the fossil fuel sector generated about 14% of Russia's GDP in 2018, and fuel provided 52% of the country's total merchandise exports. The share of oil and gas revenues in the federal budget for 2018 was 46%, for 2019 - 39%. For comparison, in 2006 this figure was 47%. The coronavirus pandemic has had a sharply negative impact on the Russian energy sector. In April-May 2020, Russian oil and gas revenues decreased by 43% compared to the same period in 2019; in the period from January to May, the decrease was 30.1%. In the second quarter of 2020, the federal budget had a deficit of 823 billion rubles, for the first time since 2017 (Egorova, 2020).

According to the September forecast of the Ministry of Economic Development, Russia's GDP in 2020 will decrease by 3.9%. Earlier, the ministry predicted a decline of up to 5%, and a number of experts considered even this forecast too optimistic, predicting a reduction in Russia's GDP to 10% in 2020. Given the importance of the energy sector in Russia, the question of its further development is now essentially a question of the development of the entire Russian economy. Russia also faces two serious global challenges. First, the world is currently in a deep climate crisis. According to the 2018 Special Report of the Intergovernmental Panel on Climate Change (IPCC) ("The 1.5 Degree Report"), so far human activities have led to an increase in the average global air temperature by 1 °C compared to pre-industrial levels. If current trends continue, between 2030 and 2052 global warming will reach 1.5°C above pre-industrial levels. This will entail dangerous consequences for all countries of the world, including Russia. Global climate change leads to an increase in the frequency and intensity of extreme weather events, such as strong winds, heavy precipitation, abnormally hot or cold weather, tornadoes, etc., as well as to a rise in the water level in the World Ocean, which has amounted to already 16-21 cm. Extreme weather events, in turn, cause significant economic risks, such as risks in agriculture, threats to food security, disruptions in production processes due to natural disasters, destruction of industrial facilities, housing, infrastructure, changing consumer preferences. According to Roshydromet, the average

annual air temperature in Russia in 1976–2018 grew 2.5 times faster than the world average, and the number of hazardous events in the period 2014–2018. in Russia almost tripled the value of 1998–2002. Secondly, the world is in a state of ecological disaster. This is expressed in the destruction of forests, pollution of soil, water and air, loss of biodiversity and destruction of natural ecosystems. According to one of the largest estimates of biodiversity loss, produced by the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) in 2019, the average species diversity in most terrestrial habitats has declined by 20% since 1900. About 1 million species of animals and plants are under threat of extinction. Pollution of air, water and soil directly affects the quality and life expectancy of people. According to the World Health Organization (WHO), atmospheric air pollution annually causes 4.2 million premature deaths in the world and 33.3 thousand in Russia (Meckling, 2020).

3 RESULTS AND DISCUSSIONS

Another important challenge for Russia is that some neighboring countries are beginning a large-scale transformation of their economic systems. In December 2019, the European Union decided to implement a new development program called the European Green Deal. This program aims to achieve zero net greenhouse gas emissions in the EU by 2050. This will require fundamental changes in European economic policy, which will affect, among other things, Russia, an important economic partner of the bloc. Russian exports are among the most carbon-intensive in the world (Molchanova, 2019; Egorova, 2020). The introduction of cross-border carbon regulation in some jurisdictions will have a significant impact on the competitiveness of Russian petrochemical, metallurgical, agricultural and other products. The EU may introduce such regulation as part of the implementation of the European Green Deal as early as 2021. In addition, a number of countries are planning to move towards carbon neutrality by the middle of the century (that is, set themselves the same goal as in the European Green Deal) and achieve 100% clean or even renewable energy. The goal of 100% clean energy is controversial, since in addition to RES, clean energy usually includes nuclear power (Meckling, 2020). This approach should be considered unacceptable due to the significant environmental and man-made risks of nuclear power plants. In June 2019, the UK became the first country in the world to formally commit itself

to achieving carbon neutrality by 2050 (Reynard, E., Panizza, M., 2020). Later, legislative decisions to move to zero net emissions by the middle of the century were also adopted in some other countries: in France, Sweden, Denmark, Hungary and New Zealand. In September 2020, China announced its intention to become climate neutral by 2060 and peak greenhouse gas emissions by 2030. Japan and South Korea have also pledged to set themselves the goal of achieving zero emissions by 2050. Elected in November 2020, US President Joe Biden has made the transition to 100% clean energy and achieving zero greenhouse gas emissions by 2050 an important element of his campaign. Thus, a number of large and not very large economies of the world have already decided to drastically reduce emissions by the middle of this century, or are very close to such a decision (Vladimirov, 2019).

Currently, in the state anti-crisis programs of Russia, as well as in the key strategic documents of the country, a bet is made on inertial growth and maintaining positions in those industries that have historically developed in Russia. The focus of the Russian economy on the oil and gas sector during the period of global energy transition and the active development of green industries creates threats to the national and economic security of the country. Given this, Russia needs to take responsibility for reducing greenhouse gas emissions through the transformation of its economic system and the active development of non-primary (primarily green) sectors of the economy (Molchanova, 2019). Urgent changes are needed in the energy sector to accelerate the transition to renewable energy sources and improve energy efficiency. Industry should immediately start introducing elements of a circular economy that will reduce emissions from industrial processes, use recycled materials on a larger scale, minimize waste generation (including from disposable goods and hard-to-recycle packaging), reduce mining and extend the life of durable goods. A transition to organic and regenerative agriculture is needed. Forestry needs to switch to sustainable management practices and focus on fire safety.

4 CONCLUSIONS

The world is currently experiencing the worst economic crisis in 100 years. According to the October forecast of the International Monetary Fund (IMF), in 2020 the global economy will contract by 4.4%, followed by a recovery growth of 5.2% in 2021. If this forecast is realized, by the end of 2021,

global GDP will be 0.6% higher than in 2019. The June forecast of the World Bank is more pessimistic: by the end of 2020, global GDP is expected to contract by 5.2% (Egorova, 2020). The pandemic will affect the global economy for at least a few more years. The COVID-19 crisis is unlike any previous crisis. Considering this, as well as the scale of its consequences, measures to stimulate further development should be different from all previously implemented anti-crisis programs. Since the start of the COVID-19 pandemic, numerous civil society representatives and decision-makers in the world's leading economies have issued a call for global leaders to emerge from the crisis by investing in green industries and infrastructure while respecting the principles of sustainable development. In particular, such statements were made by the UN, the Club of Rome, European and American corporations, 500 NGOs from around the world led by 350.org, WHO and a group of medical professionals from 90 countries, as well as heads of central banks and ministers. All key proposals are presented in the appendix to this document. According to the position of European corporations, the European Green Deal will become an economic driver for Europe and will create new jobs in a number of sectors, such as energy, transport, construction, manufacturing and agriculture. American corporations outside the energy sector are demanding support for green energy. Some former and current EU central bankers, as well as some EU ministers and city mayors, have called for a green recovery economy and climate action. The WHO calls for a rapid energy transition to reduce mortality from air pollution and draws attention to the fact that renewable energy has recently become much cheaper and more reliable, and their introduction allows you to create more jobs that are safer and better paid than in the traditional energy sector. Energy (Murtazova, 2021; Gakaev, 2018). Organizations from 90 countries, which unite more than 40 million medical professionals, are calling for the redirection of subsidies from the fossil fuel sector to the renewable energy sector in order to reduce harmful emissions to health without compromising economic growth. Support for the green sectors of the economy has already been applied as part of the policy of national economic recovery after the previous major crisis in 2008–2009. In particular, it was used by China, the USA, South Korea, Japan, Canada and the EU countries. In total, the G20 countries directed about 16% of the funds allocated for anti-crisis programs to the green sector. Some countries have made particularly large investments. For example, China has spent about 3% of its GDP on

stimulating the green sector, mainly on energy efficiency. South Korea has allocated 5% of its GDP to the green sector, mainly in solar and wind energy, electric vehicles and high-speed rail. Russia during this period, and also after it, did not use the opportunities to transform its economy, and Russian green industries, including renewable energy and energy efficiency, are still at the initial stages of development. At the moment, Russia risks once again missing the opportunity to give a strong start to new sectors of the economy and reduce its dependence on raw materials.

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