LOW-CARBON DEVELOPMENT STRATEGY INTERNATIONAL EXPERIENCE AND RUSSIA'S PRIORITIES

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Abstract

The national climate policy of Russia against the international background has been developing quite slowly. Its development entered an active phase in the 2010s with the adoption of the Climate Doctrine of the Russian Federation at the end of 2009, and is now detailed in action plans aimed at achieving the goals of reducing GHG emissions and adapting to climate change. The climate doctrine has secured the priority of national interests in the development and implementation of climate policy, but the driver of its current development is the international agenda and climate initiatives of Russia's main trading partners (primarily the EU). According to a VTsIOM survey from September 202067, the majority of Russians agree that climate change is taking place on the planet (93% of respondents), and notes that they have an impact on their lives (57%). At the same time, if 52% of the Russians surveyed consider global warming to be a really serious problem, then 40% characterize this problem as far-fetched and inflated (8% found it difficult to answer). Russians are generally not ready to pay more for goods and services, even if these funds are used to introduce alternative energy sources or improve energy efficiency (62%–76% of respondents, depending on the product or service). Russian business is also against the introduction of additional climate fees. Strengthening the national climate policy in Russia is supported by the majority of the scientific community (although there are also climate skeptics in Russia) and by a number of experts who point to a significant potential increase in costs associated with both the need to adapt to climate change and the further spread of climate initiatives in the world. Thus, the climate policy in Russia can be attributed to one of the most controversial and difficult areas to develop.

Keywords: national climate policy, climate initiatives, climate change, environmental problems, environmental protection, global warming

I. Introduction

Russia supports international efforts aimed at combating climate change and is ready to cooperate in this area with all states, but considers it unacceptable to consider climate change and environmental protection issues from a biased point of view, infringing on the interests of energy-producing states and deliberately ignoring aspects of sustainable development such as universal access to energy and the development of clean hydrocarbon energy technologies. It is a party to the UNFCCC, its Kyoto Protocol, the Paris Agreement and international treaties for the protection of the ozone layer, and also participates in ICAO and IMO. Russia signed the UNFCCC on June 12, 1992 and ratified it on November 4, 1994 (Federal Law No. 34-FZ of November 4, 1994), becoming an Annex I country (developed countries and countries in transition to a market economy) [1]. On March 11, 1999, Russia signed the Kyoto Protocol, but ratified it on November 4, 2004 (Federal Law No. 128-FZ dated November 4, 2004), assuming quantitative obligations to maintain the level of GHG emissions in the first period of the Kyoto Protocol (2008– 2012) at the

1990 level [2]. The Conference of the Parties to the UNFCCC in Doha in 2012 determined the second period of the Kyoto Protocol - 2013-2020 [3]. Russia refused to secure for itself the quantitative obligations of the second period, formally remaining a party to the Kyoto Protocol. On April 22, 2016, Russia signed the Paris Agreement (in accordance with the Decree of the Government of the Russian Federation of 14.04.2016 No. 670-r), but acceded to it on September 21, 2019 (Decree of the Government of the Russian Federation of 21.09.2019 No. 1228). The Paris Agreement, including at the insistence of Russia, includes articles that fix an adequate account of the forest factor and the importance of global adaptation. On November 25, 2020, Russia announced its first nationally determined contribution as part of the implementation of the Paris Agreement.

The problem of climate change is interdisciplinary in nature, therefore the development and implementation of climate policy in Russia is under the jurisdiction of several executive authorities, and interdepartmental groups are created to coordinate it. The Government Commission on Nature Management and Environmental Protection will solve the following tasks. coordination of actions of federal government bodies, executive authorities of the constituent entities of the Russian Federation and other bodies and organizations on the implementation of the national action plan for the first stage of adaptation to climate change for the period up to 2022 and the conservation and efficient use of forest resources and the development of the timber industry complex. Information and analytical support for the activities of the Commission is carried out by the Ministry of Natural Resources of Russia on issues of nature management and environmental protection, the Ministry of Economic Development of Russia - on issues of adaptation to climate change. Measures to combat climate change (mitigation) are aimed at reducing anthropogenic GHG emissions and improving the quality of sinks and reservoirs. In a narrow sense, they can be limited to the introduction of GHG emissions pricing (carbon pricing), in a broad sense, which is more common, they can include all measures that directly or indirectly lead to the reduction of GHG emissions. There are various classifications of climate policy measures, for example, depending on the coverage: general economic and sectoral [4]. General economic experiment on the establishment of special regulation in the Sakhalin Region in order to create the necessary conditions for the introduction of technologies aimed at reducing GHG emissions, working out the methodology for creating a system for verifying, accounting for GHG emissions and removals (the corresponding roadmap was approved in January 2021 by the Deputy Prime Minister of the Russian Federation V. Abramchenko) The introduction of mandatory carbon reporting and the creation of conditions for the implementation of voluntary initiatives to reduce emissions and increase absorption of GHGs (drafts of the Federal Law On the Limitation of GHG Emissions and the Concept of a system for accounting, registration, issuance for circulation, transfer and offset of climate change results) are being considered. projects implemented in the Russian Federation) The introduction of public non-financial reporting is being considered (the Russian Ministry of Economic Development prepared and submitted to the Government of the Russian Federation the draft Federal Law financial reporting - as part of the Action Plan for the implementation of the Concept for the Development of Public Non-Financial Reporting (Decree of the Government of the Russian Federation dated May 05, 2017 No. 876-r) [6]. The development of a national taxonomy of sustainable financing is being considered (as part of the Order of the Government of the Russian Federation dated November 18, 2020 No. 3024-r) Payment for negative impact on the environment: for emissions of pollutants into the atmospheric air by stationary sources, for discharges of pollutants into water bodies and during waste disposal (Federal Law No. 7-FZ of January 10, 2002 On Environmental Protection) Subsidies from of the federal budget to Russian organizations to reimburse the costs of paying coupon income on bonds issued as part of the implementation of investment projects to introduce the best available technologies (Decree of the Government of the Russian Federation dated April 30, 2019 No. 541) the efficiency of the economy of the Russian Federation - with an emphasis on the most energy-

intensive sectors of the economy (energy, industry, transport and housing and communal services) [3-4].

Strategies and measures to combat climate change are becoming more widespread in the modern world. Thus, according to some estimates, in 2007-2017, the number of countries that adopted climate strategies increased from 9 (5% of a sample of 194 countries) to 48 (25%), and the number of countries with climate legislation that enshrines mandatory measures increased from 32 (16%) to 46 (24%). At the same time, these 94 countries with climate strategies and measures accounted for 69% of global GHG emissions in 2017 [5]. Along with the growth of climate policies and measures, there has been an increase in targets for the reduction of GHG emissions, the development of renewable energy sources and energy efficiency. The number of countries with nationally linked GHG emission reduction targets increased from 39 (20%) in 2007 to 147 (76%) in 2017; with targets for renewable energy (both in the energy balance as a whole and only in the electric power industry), respectively, from 39 (20%) to 137 (71%); with energy efficiency targets — from 36 (28%) to 59 (31%) [6]. The most typical climate strategies, measures and goals for European countries. In Russia, at the national level, strategic documents in the field of combating climate change have been adopted and are being developed, measures are being taken to reduce GHG emissions, and a goal has been set to reduce them by 2030. The target indicators for the volume of production and consumption of electric energy using renewable energy sources (except for hydroelectric power plants with an installed capacity of more than 25 MW) are fixed at the level of 4.5% by 2024 (Decree of the Government of the Russian Federation dated July 28, 2015 No. 1472-r). The goal of reducing the energy intensity of Russia's gross domestic product by at least 40% by 2020 compared to 2007 (Decree of the President of the Russian Federation dated June 4, 2008 No. 889), according to the Russian Ministry of Economic Development, while maintaining the current pace, will be achieved with a large lag behind plan, in 2043 [7]. The draft of a new comprehensive plan to improve energy efficiency assumes a reduction in the energy intensity of Russia's GDP by 35% by 2017 by 2030 (20% of which will be provided by the technological factor). The number of climate strategies, measures and goals reflects the attention of countries to this area, and qualitative (expert) assessments are formed to evaluate their efforts. Such an assessment, in particular, is offered by the Climate Change Performance Index, an integral component of which is Climate Policy (at the national and international levels). Its assessment is formed by climate and energy experts from non-governmental organizations, universities and research centers. The 2020 Climate Change Performance Index ranks Russian efforts in the Climate Policy component as very low (54 out of 58), including very low at the national level and low at the international level. It should be noted that not a single country of the ranking received a very high score in this component for 2020. As in the previous year, G20 countries scored low and very low, South Africa was able to improve its score to medium, and Saudi Arabia's score deteriorated to low [8].

Russia’s «Climate Policy» assessment does not take into account the approval of the 2030 GHG emission reduction target, but experts in the assessment note strong opposition to the country’s increased climate ambitions from carbon-intensive industries. According to their assessment, this overpowers such positive signals as improved regulation in the housing and communal services for the national dimension and accession to the Paris Agreement for the international dimension. Some potential has been noted for energy efficiency, GHG reduction and land use initiatives under discussion in Russia (including protected areas and reforestation projects).

II. Methods

The challenges posed by current global climate policy trends dictate the need for further development of strategies and measures to counteract climate change in Russia, along with adaptation strategies and measures. It seems important to identify measures on the implementation of which a relative consensus can be expected in Russia and which can be

implemented in the first place. Such measures can include [7-8]: improving the accounting and protection of the forest fund; introduction of a national system for reporting and monitoring GHG emissions (the relevant draft law has been prepared by the Ministry of Economic Development of Russia); creating conditions for the implementation of voluntary initiatives to reduce GHG emissions (the Russian Ministry of Economic Development has prepared a corresponding concept); shaping the image of Russia as a climate-responsible country; expanding opportunities for promoting Russian low-carbon technologies to foreign markets.

When formulating climate goals, Russia focuses on taking into account the absorptive capacity of forests. Despite the existence of an approved methodology for taking into account the absorption capacity, the discussion of preferred approaches to accounting continues, in particular, it is proposed to: the formulation of Russia's new climate goal for 2030 [9]. Develop methods for accounting for GHG emissions by product range and offsetting GHG emissions by forests and soils with reference to the product range; Agree on new methodologies at the international level of the UNFCCC. In Russia, the development of carbon landfills (farms) can help improve the accounting of GHG emissions and the absorptive capacity of forests and agricultural lands. They are experimental territories (enterprises) where technologies for remote and ground-based calculation of the absorbing (sequestration) potential are being tested. The development of a network of such carbon landfills can ensure the creation of a national system for calculating the carbon balance based on internationally verified technologies and methods. It is assumed that the national system will provide an objective calculation of the carbon balance; its results can be used at the international level, incl. in the framework of international trading in quotas for GHG emissions. In the world, the sequestration industry aims to produce and sell carbon credits (offsets) to reduce the carbon footprint of enterprises, industries and countries. As of 2020, carbon farms of various designs and functions occupy hundreds of millions of hectares worldwide with a trend of reaching $3-4 trillion per year by 2030. In September 2020, the first carbon farm in Russia was created in the Kaluga Region (within the boundaries of the Ugra National Park), within which it is planned to implement a set of innovative and technological solutions, the use of which will create scientifically based methods for objectively calculating the carbon balance of territories [10].

In December 2020, the Russian Ministry of Education and Science announced84 the launch in 2021 of a program to create carbon polygons based on Russian universities located in different regions (10-12), with the involvement of regional authorities and businesses. In order to create a network of carbon landfills, the Ministry of Education and Science of Russia sent a proposal to the Ministry of Natural Resources of Russia to include the relevant measure in the plan to reduce GHG emissions. At the same time, it is necessary to continue work in Russia to improve the quality of data on Russian forests, completing the formation of a full-fledged forest registry (which digitalization can contribute to), and to expand and protect the forest fund of Russia [9].

Reporting on GHG emissions can be considered at the aggregate level and at the level of economic entities (export requirements, investor preferences, exchange rules). Aggregate level It is important to develop a national reporting system that will provide up-to-date information on GHG emissions at the level of regions, municipalities and sectors of the economy, as well as create a basis for modeling and forecasting the consequences of climate policy and climate risks (including the use of mechanisms for assessing the regulatory and actual impact of measures climate policy based on correct data). In the future, it is possible to expand such a system to the level of the EAEU. Corporate Level Another direction is the need to disclose the carbon reporting of companies in accordance with the requirements of international organizations and investors. In this regard, it is important for Russia to implement as soon as possible a national system for reporting and monitoring GHG emissions, which would allow Russian companies to comply with external “climate” requirements in terms of information disclosure, and would also not require companies to report simultaneously on different external and internal requirements. The concept of forming such a reporting system has been approved, and a number of methodological guidelines and recommendations have been developed at the level of the Ministry of Natural Resources of Russia and the Ministry of Economic Development of Russia, but legislative

registration of the process of its formation is required. As part of the prepared draft law on limiting GHG emissions into the atmospheric air, basic approaches are outlined, which require detailing at the level of by-laws [7-8]. Against the background of the strengthening of the climate agenda, the importance of carbon footprint assessments will increase - the measurement of GHG emissions generated as a result of the activities of an organization, the holding of an event or the production of a product. It is advisable to study the methods and methods for assessing the carbon footprint, as well as ways to verify the data obtained.

Currently, the alternative of carbon pricing in Russia is causing a sharp negative reaction from large industry and is perceived by it as an additional fee, so the introduction of obligations (quotas, taxes, fees) for a wide range of economic entities may be premature. Nevertheless, conditions should be created for the implementation in Russia of voluntary initiatives to reduce GHG emissions. Such initiatives may be needed to support Russian exporters in the near future, primarily in connection with the planned introduction of a transboundary carbon mechanism in the EU, so they will require consultations with the EU. Russian exporters can independently participate in the trading of carbon units in foreign markets, observing the established requirements and standards, but such an approach creates risks for the Russian economy and budget.

III. Results

Countering climate change, which contributes to the solution of one of the global problems, is an area of unification of the efforts of almost all countries of the world [5]. Since Russia is one of the largest emitters of GHGs, more attention should be paid to highlighting the country's efforts (with an indication of existing restrictions and further intentions) and look for opportunities to promote such climate initiatives that would meet national interests - for example, international cooperation in terms of adaptation to climate change or support for carbon capture and storage (CCS) projects. In addition, it is possible to intensify work on creating alliances with countries that have similar interests in order to strengthen the negotiating position during international climate negotiations. So far, Russia has mostly been out of associations: formally, it is a member of the Umbrella Group, organized in 1997, but at the current stage, Russia has few similarities in positions with the developed countries of this group. The creation of associations with developing countries is partly hampered by Russia's belonging to Annex I of the UNFCCC [7]. Financing is one of the most difficult issues to agree on in international climate negotiations, but this does not affect Russia much: it is neither a recipient of financial assistance (as an Annex I party) nor a major donor (the status of an economy in transition allows it to provide assistance on a voluntary basis). It is advisable to consider the development of an index that assesses the efforts of countries to combat climate change in Russia or within a regional association with Russian participation (for example, the EAEU or BRICS) [8].

In Russia, stimulating non-commodity non-energy exports is one of the national priorities. The development of high-tech and low-carbon technologies in Russia (RES, hydrogen, energy efficiency technologies, etc.) for exports and the domestic market can become one of the significant growth points for the national economy. Moreover, under the auspices of the Paris Agreement, the Sustainable Development Mechanism (SDM) is being finalized. It implies joint actions of countries to reduce GHG emissions (both market and non-market) and opens up opportunities for promoting low-carbon technologies to foreign markets. In light of the promotion of non-commodity exports, these opportunities deserve careful study in Russia. The mechanisms being developed in Russia to provide sustainable (including «green») financing can also contribute to the promotion of low-carbon technologies. They are formed by the Ministry of Economic Development of Russia and VEB.RF, which has already submitted Methodological recommendations for the development of investment activities in the field of «green» financing in Russia. Further, issues are considered, the solution of which is important, but for the current

period there is no relative consensus on them.

At the same time, it is equally important, but much more difficult in an economy where traditional energy resources play a leading role, to agree on medium and long-term guidelines for national climate policy, which should indicate the direction of the transition to a low-carbon development path - in line with international trends. This is the aim of the draft Strategy for the socio-economic development of the Russian Federation with low GHG emissions until 2050, prepared by the Ministry of Economic Development of Russia [6]. It is also preferable to determine the conditions under which the introduction of carbon pricing is possible in Russia. The draft Strategy for Social and Economic Development with Low GHG Emissions provides for the formation of an integrated national system for monitoring and forecasting GHG emissions. In addition, we can consider the organization of monitoring the challenges of the development of climate regulation in the world for the Russian economy and a comprehensive assessment of their impact [7].

The most contentious issue is the introduction of carbon regulation in Russia to maintain payments for GHG emissions when EU cross-border carbon regulation is introduced. Russia is one of the few countries that currently lack such regulation, which creates significant risks. In parallel, it is necessary to consider compensatory measures for the most sensitive industries and consumers, as well as the possibility of a symmetrical response for importers to Russia. It seems important to move to proactive actions in terms of climate policy measures. In the light of the planned introduction of a transboundary carbon mechanism in the EU, it can be expected that the problem of carbon regulation will reach the level of international relations. Russia is one of the major trading partners of the EU, which currently lacks any system of carbon regulation (carbon taxes or emissions trading). The lack of such regulation deprives Russia of flexibility in terms of the possibility of offsetting payments for GHG emissions on its territory. As a result, in order to maintain (full or partial) payments for greenhouse gas emissions in Russia, as well as for a symmetrical response, it is advisable to take the following steps: the initial stage will work on a voluntary basis [8]. However, if relevant requirements from the EU appear for certain groups of goods (which are covered by the TUR), the introduction of a mandatory regime will be required. It is proposed to hold timely consultations with the EU on issues of compliance with the EU decarbonization practice (in particular, to study the example of introducing the Chinese trading system). Explore the possibility of introducing symmetrical measures for imports from the EU (to equalize conditions with the EU and other countries that may introduce regulation in response to EU measures) with simultaneous compensation for consumers in Russia. Work out support (compensation) measures in Russia for enterprises and industries most affected by the introduction of TUR and carbon regulation measures, including benefits within the national trading system, as well as tax incentives.

IV. Discussion

Energy companies responsible for the majority of GHG emissions follow market and regulatory signals and set targets to reduce GHG emissions. In some European retail markets, consumers can already indicate their preferences for renewable energy or change their electricity supplier. The development of green certificate systems for gas and electricity contributes to the development of markets in the energy and related sectors. Energy consumers have the opportunity to take part in mitigating climate change by reducing their consumption or using cleaner energy sources, including their own, such as rooftop solar panels or home fuel cell energy centers [5-6]. Environmental friendliness, reducing the burden on the environment, climate protection are becoming important consumer motives. In this regard, energy companies around the world are deploying corporate strategies to move towards carbon-free solutions and assets.

In Russia, the situation is somewhat different from the world [4]: Unlike many other countries of the world, in Russia the problem of climate change is still a low priority for the population, business, and government, which slows down the process of decarbonization of the oil and gas sector compared to the best international practices. The established national goal of reducing GHG emissions by 2030 to 75% of the 1990 level allows the Russian Federation not to introduce any control measures during this period, since already in 2017 GHG emissions amounted to 50.7% of the 1990 level. climate strategy leads to the absence, in turn, of real government incentives for decarbonization strategies in general and in the oil and gas sector in particular. The regulation of GHG emissions in the Russian Federation is at an early stage, only in February 2021 the Russian Government prepared and submitted to the State Duma a draft law on limiting GHG emissions. While government requirements to reduce GHG emissions remain extremely fragmented (reduced to requirements to reduce associated petroleum gas flaring and control methane emissions), there are no CO2 pricing rules, no GHG emission intensity standards [8].

Regulators would do well to develop a climate strategy with more ambitious climate targets and a comprehensive strategy to reduce GHG emissions in the oil and gas sector (including a strategy to reduce methane emissions). It may include a variety of regulatory mechanisms - standards, targets, requirements for monitoring, reporting and pricing of GHG emissions, rules for certification and verification of projects to reduce emissions, etc. It is also important to approve public funding for R&D and pilot projects to reduce GHG emissions, especially in areas of deep decarbonization. It is necessary to further analyze the competitive advantages of Russia in the field of decarbonization, and then promote them both domestically and on the world market. Corporations should incorporate decarbonization into their overall business strategy and investment plans, rather than limiting it to just health, safety, environment and investor relations departments. To implement an effective decarbonization strategy for any company, it is necessary to review the strategy and corporate governance as a whole [9-10]. A comprehensive analysis of GHG emission sources will allow oil and gas companies to identify measures that allow them to reduce GHG emissions as quickly as possible and with maximum economic effect, and present them to clients and investors. Companies can also build networks with partners who support their decarbonization strategies. Such partner networks may include educational and research institutions, international R&D exchange partners, venture capital investors working on deep decarbonization projects, technology companies that can help improve GHG emissions measurement and disclosure, and local suppliers and customers. facing similar problems.

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