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### Legal and Institutional Aspects of Russia's Policy on Climate Change Adaptation in the Arctic Zone

Darya N. Veselova<sup>1✉</sup>, Cand. Sci. (Polit.)

<sup>1</sup> Saint Petersburg State University, Universitetskaya nab., 7/9, Saint Petersburg, Russia

<sup>1</sup> North-West Institute of Management of the Russian Presidential Academy of National Economy and Public Administration, Sredny pr., V.O., 57/43, Saint Petersburg, Russia

<sup>1</sup> University under the Inter-Parliamentary Assembly of EurAsEC, ul. Smolyachkova, 14, building 1, lit. B, Saint Petersburg, Russia

<sup>1</sup> daria-voronchikhina@mail.ru ✉, ORCID: <https://orcid.org/0000-0002-6674-0357>

**Abstract.** The aim of this article is to examine the legal and institutional components of Russian policy on climate change adaptation in the Arctic region of the Russian Federation. For this purpose, regulatory legal acts concerning the issue of adaptation to climate change were studied. The documents are divided into four groups. The main methods are document analysis, comparative analysis. The author made the following conclusions. The legal framework for climate change adaptation has been generally formed in Russia. However, the definition of adaptation, its aims and objectives are not specified in the Russian Federation's environmental legislation; therefore, amendments to the legislation are required. Adaptation is reflected in strategic documents of Russia, but not all strategies highlight it as a direction of climate policy. The documents on the development of the Arctic region of the Russian Federation prescribe a number of adaptation measures. The main documents in this area are federal, sectoral and regional adaptation plans. The Arctic zone of the Russian Federation has adopted its own plan. Seven constituent entities of the Russian Federation within the Arctic zone have adopted their own plans, which are characterized by the abstract nature of the measures and their inconsistency with adaptation measures, and which also fail to reflect the interests of the indigenous peoples of the North. This requires detailed refinement of the plans and the introduction of amendments. The institutional framework is represented by the Special Representative of the President of the Russian Federation on Climate Issues, executive bodies and committees of legislative bodies. Scientific institutions and the business community are interested in the implementation of adaptive policy. However, specialized body that would be responsible for implementing policy in this area, either in the country as a whole or in the Russian Arctic, hasn't been created. The Ministry of Natural Resources and the Environment of the Russian Federation at the federal level and the Ministry for Development of the Russian Far East and Arctic in the Arctic zone could be responsible for implementing such policies. Supervisory powers should be assigned to Roshydromet (the Federal Service for Hydrometeorology and Environmental Monitoring). The practical significance of the work lies in the possibility of using its results by Russian political actors.

**Keywords:** *Arctic, climate change, adaptation, mitigation, Arctic zone of the Russian Federation, adaptation plans, Climate Doctrine, climate policy, Arctic entities*

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### ***Introduction***

Climate change is a global challenge for humanity. The climate in the Arctic region is changing at a rapid pace. Climate scientists have introduced the term “Arctic amplification”, which refers to particularly rapid changes in the Arctic environment linked to climate change<sup>1</sup>. In 2023, temperatures in the Arctic Zone of the Russian Federation<sup>2</sup> (hereinafter referred to as the AZRF) were 1.12°C above the norm for the 1991–2020 baseline period. Above-normal temperatures were observed throughout the AZRF<sup>3</sup>. Scientists predict that air temperatures in the western part of the Russian Arctic could increase by 6–10°C by the end of the 21st century if greenhouse gas emissions continue to rise<sup>4</sup>.

The Russian Arctic covers 28% of the country's total territory. It is home to 2.4 million people. The AZRF accounts for 10% of the GDP and provides around 25% of exports. The Arctic region is of strategic importance to Russia.

The 2009 Climate Doctrine is the first document of the Russian Federation to establish the foundations of climate policy in the country. The Doctrine identifies two areas for implementing climate policy: climate change mitigation and adaptation to climate change.

Recent studies show that efforts to reduce greenhouse gas emissions are not producing the expected results: global warming is not slowing down, and greenhouse gas concentrations in the atmosphere are not decreasing. Therefore, adaptation to climate change is becoming increasingly important.

The Intergovernmental Panel on Climate Change (IPCC) defines adaptation to climate change as “adjustment of environmental, social or economic systems in response to actual or expected climate-related drivers and their consequences or impacts”<sup>5</sup>. In other words, adaptation involves adjusting systems to the negative consequences of climate change and capitalizing on the positive ones.

<sup>1</sup> Loboda T. Climate Change Adaptation Strategies in the Arctic: A Review of Community-Based Initiatives, 2023. URL: <https://geoinfo.ru/product/loboda-tatyana/strategii-adaptacii-k-izmeneniyam-klimata-v-arktike-obzor-iniciativ-na-urovne-raznyh-soobshchestv-50275.shtml> (accessed 01 April 2025).

<sup>2</sup> In this study, the Russian Arctic and the Arctic zone of the Russian Federation are synonymous.

<sup>3</sup> On the State and Protection of the Environment of the Russian Federation in 2023. Draft State report. Moscow: Ministry of Natural Resources of Russia; Intellectual Analytics LLC; Scientific and Progress Directorate; Foundation for Environmental Monitoring and International Technological Cooperation; 2024. 707 p. URL: <https://2023.ecology-gosdoklad.ru/> (accessed 01 April 2025).

<sup>4</sup> Temperatures in the Arctic are predicted to rise by up to 10 degrees Celsius by the end of the 21st century. 2024. URL: <https://www.ocean.ru/index.php/novosti-left/smi-o-deyatelnosti-instituta/item/3277-v-arktike-prognoziruyut-rost-temperatury-do-10-gradusov-do-kontsa-xxi-veka> (accessed 01 April 2025).

<sup>5</sup> Working Group II: Impacts, Adaptation and Vulnerability. URL: <https://archive.ipcc.ch/ipccreports/tar/wg2/index.php?idp=643> (accessed 01 April 2025).

In Russia, a package of documents on climate change adaptation began to be developed in 2019, when the national action plan for the first phase of climate change adaptation for the period up to 2022 was adopted. Since then, sectoral and regional adaptation plans have been approved. However, some experts (Anisimov, Badina, 2024) note that these plans have numerous shortcomings, and overall, the regulatory framework for this issue is not fully developed and incomplete. There is also a lack of specialized actors implementing climate change adaptation policy in the Arctic Zone of the Russian Federation. In this regard, it is worth examining the legal and institutional components of Russia's policy on adaptation to climate change in the Arctic Zone of the Russian Federation.

The aim of this article is to examine the legal and institutional components of Russian policy on climate change adaptation in the Arctic zone of the Russian Federation.

In recent years, numerous studies have been devoted to the issue of climate change. There has been a particular rise in interest in Russia's climate policy. S.K. Gulev and D.A. Solovyov have assessed Russia's role in combating global climate change (Gulev, Solovyev, 2024). D.N. Veselova (Veselova, 2021), I.O. Krasnova (Krasnova, 2023), I.A. Yakovlev, L.S. Kabir and S.I. Nikulina (Yakovlev, Kabir, Nikulina, 2020) have addressed issues relating to the regulatory and legal framework for Russia's climate policy. Scholars who examined the provisions of documents in the field of adaptation to climate change include M.E. Kadomtseva (Kadomtseva, 2023), S.I. Kodaneva (Kodaneva, 2024), A. Mo, E. Lamazhapov, and O.A. Anisimov (Moe, Lamazhapov, Anisimov, 2023). O.A. Anisimov and S.V. Badina (Anisimov, Badina, 2024) studied regional climate change adaptation plans in the AZRF. The issue of assessing the effectiveness and efficiency of measures to adapt the population and the economy to climate change was addressed in the works of B.N. Porfiryev (Badina, 2021). S.V. Badina and A.A. Pankratov (Porfiriev, 2024; Badina, 2021) investigated the issue of adaptation to climate change in the AZRF. N.S. Kudelkin (Kudelkin, 2022) examined in detail the issue of adaptation to climate change in documents devoted to the development of the AZRF. Among foreign authors who have addressed issues of adaptation to climate change from a political and legal perspective, R.R. Biswas, A. Rahman (Biswas, Rahman, 2023), C. Clar, R. Steurer (Clar, Steurer, 2019), and G. Stephan (Stephan, 2023) are particularly noteworthy.

The main methods used include document analysis and comparative analysis. In particular, the study analyses the provisions of Russian Federation legislation that, to a greater or lesser extent, address issues of climate change adaptation, and compares regional climate change adaptation plans approved in Russia's Arctic regions. General scientific methods were also used: generalization and synthesis.

The relevance of the study lies in the fact that the presented materials complement and develop theoretical and practical knowledge on the legal and institutional components of Russia's policy in the field of adaptation to climate change in the Arctic zone of the Russian Federation.

The practical significance of the study is that the materials presented are intended for use in teaching courses at higher education institutions; furthermore, the results can be used by Rus-

sian policy-makers at all levels of government when planning and implementing policies in the field of climate change adaptation.

### **Research results**

#### ***Legal framework for climate change adaptation in the Arctic zone of the Russian Federation***

The first document of the Russian Federation to address climate change issues was the Climate Doctrine, adopted in 2009. It established two areas of climate policy: mitigation of climate change and adaptation to these changes. It is particularly noteworthy that this document already emphasized the need for proactive adaptation <sup>6</sup>, taking into account sectoral, regional, and local specifics <sup>7</sup>, rather than reactive one <sup>8</sup>. The doctrine is political in nature and therefore requires the adoption of a separate document outlining specific adaptation measures. Such a subordinate legislative act was the Roshydromet Action Plan for the Implementation of the Comprehensive Plan for the Implementation of the Climate Doctrine of the Russian Federation, which, among other things, provided for a series of measures to develop and implement operational and long-term measures for adaptation to climate change (10 areas).

In 2023, a new Climate Doctrine was adopted. While climate change mitigation was previously considered a priority, this document places emphasis on adaptation to climate change, as measures to reduce greenhouse gas emissions have not produced the expected effect at either the international or national levels. M.M. Lobanov, E. Zvezdanovich Lobanova, and M. Zvezdanovich note in their study that not all countries that joined the Paris Agreement (193) have actually engaged in the decarbonization process. Thus, 136 countries have set deadlines for achieving carbon neutrality (usually by 2050), but less than 30 of them have launched specific programs to reduce CO<sub>2</sub> emissions. Furthermore, the so-called “race to zero” (the UNFCCC initiative to achieve zero net CO<sub>2</sub> emissions by 2050) requires much greater government spending than the implementation of “targeted” adaptation measures (Lobanov, Zvezdanovic, Lobanova, Zvezdanovic, 2024). It is worth noting that on January 20, 2025, the United States, the world's second-largest carbon dioxide emitter as of 2024 <sup>9</sup>, withdrew from the Paris Agreement, which highlights the fragmented nature of countries' mitigation efforts.

Russia's new Climate Doctrine enshrines the principle that proactive adaptation to climate change is a priority of climate policy. A key difference from the previous document lies in the composition of the entities responsible for implementing climate policy. Thus, in the new doctrine, citizens of the Russian Federation are identified as an independent entity in addressing this issue, meaning that responsibility for the effectiveness of climate action now rests with ordinary citizens. However, before placing responsibility on citizens, it is first necessary to establish a system for

<sup>6</sup> Adaptation that takes place before the effects of climate change have become apparent (preventive adaptation).

<sup>7</sup> Order of the President of the Russian Federation of 17.12.2009 No. 861-rp "On the Climate Doctrine of the Russian Federation". URL: <https://base.garant.ru/2170243/> (accessed 01 April 2025) (ceased to be valid).

<sup>8</sup> Adaptation, which involves taking action to address the impacts of climate change after they have been discovered.

<sup>9</sup> Carbon Emissions. URL: <https://www.worldeconomics.com/Indicator-Data/ESG/Environment/Carbon-Emissions/> (accessed 01 April 2025).

providing the public with reliable and timely information on current and future climate change and its actual and projected consequences, as well as to foster “climate awareness” and “climate culture” among citizens, which requires a long period of time. Moreover, unlike the 2009 Doctrine, the document contains specific target indicators, which is a significant step forward.

We can only speak of the formation and development of the legal framework for climate change adaptation since 2019, the year Russia joined the 2015 Paris Agreement on Climate Change (September) and the year the national action plan for the first phase of climate change adaptation for the period up to 2022 was adopted (December).

The entire regulatory framework concerning the adaptation of the economy and the social sphere to climate change in the Russian Federation can be divided into four groups of documents depending on the subject matter. The first group consists of the Russian Federation's strategic planning documents, which enshrine provisions on the need to take climate change into account when implementing various measures. The second group consists of federal legislation dedicated to ensuring environmental safety in Russia. As the subject of this study is adaptation policy in the Arctic Zone of the Russian Federation, a separate group of documents should be identified that regulates issues of socio-economic development in the AZRF, with climate change being an external factor influencing the implementation of Arctic policy as a whole. The fourth group of documents is directly devoted to adaptation to climate change throughout the country and in the regions.

The 2024 Presidential Decree on the national development goals of the Russian Federation until 2030 and for the long term up to 2036 sets the approval and implementation of climate change adaptation programs at the federal, regional, and corporate levels as a task for achieving the national goal “Sustainable and Dynamic Economy”. At the federal level, measures have been implemented since 2019 as part of national climate change adaptation action plans<sup>10</sup>. At the regional level, 75 constituent entities have adopted regional adaptation plans. Considering the corporate level, it is worth noting that many large enterprises operating in the AZRF are taking measures to adapt to climate change (reforestation, renewable energy, transition to gas-powered vehicles) as part of their sustainable development and corporate social responsibility policies.

The 2021 National Security Strategy of the Russian Federation identifies adaptation to climate change as a national interest of Russia. Meanwhile, the 2023 Foreign Policy Concept of the Russian Federation mentions adaptation more frequently than the previous document, including as a national interest and priority of the Russian Federation. Mitigation of the effects of climate change is not specified in any of the documents under consideration, which confirms the thesis regarding the predominant nature of adaptation to climate change in recent times (approximately since 2023) in strategic planning documents developed as part of goal-setting.

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<sup>10</sup> Decree of the President of the Russian Federation of May 7, 2024 No. 309 "On the National Development Goals of the Russian Federation until 2030 and for the Period up to 2036". URL: <http://kremlin.ru/events/president/news/73986> (accessed 01 April 2025).

The Environmental Security Strategy of the Russian Federation until 2025, approved in 2017, merely notes that threats to environmental security persist, despite the measures being taken to adapt economic sectors to adverse climate change<sup>11</sup>. Nothing is said about the measures themselves. This circumstance confirms that, prior to 2019, adaptation measures were not given sufficient attention.

In February 2021, a Decree of the President of the Russian Federation was issued<sup>12</sup>, requiring the approval, no later than August 2021, of the Federal Scientific and Technical Program in the Field of Environmental Development of the Russian Federation and Climate Change for 2021–2030. However, this program was only approved a year later, in February 2022<sup>13</sup>. Among the program's priorities, the adaptation of ecological systems, populations, and economic sectors to climate change is highlighted. At the same time, it is recognized that Russia has high adaptive potential.

Let us consider Russia's sectoral strategic planning documents. The Russian Federation's Transport Strategy until 2030, with a forecast to 2035, identifies the adaptation of construction technologies and materials to climate change as a particular challenge, especially for projects in permafrost zones<sup>14</sup>. At the same time, the issue of reducing greenhouse gas emissions is addressed more comprehensively in this document, and specific measures to reduce emissions from various modes of transport are proposed.

The Strategy for the Development of the Forestry Complex of the Russian Federation until 2030 devotes an entire section to climate policy. It is noted that scientists have developed climate change adaptation scenarios, including a set of adaptation measures for key vulnerability factors of forest ecosystems, and linked these scenarios to specific regions (Badina, Pankratov, 2021)<sup>15</sup>. The document focuses more on adaptation to climate change in forestry than on reducing greenhouse gas emissions. However, it should be understood that mitigation and adaptation are closely intertwined in the forestry complex, as forests are capable of absorbing carbon and have natural absorption properties, and therefore their conservation and restoration is a crucial task within the framework of climate policy not only in Russia but also in any other forested country in the world.

The Energy Strategy of the Russian Federation until 2035 highlights climate change as a key area for the fuel and energy sector (FES). Among the objectives in this area, the strategy highlights

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<sup>11</sup> Decree of the President of the Russian Federation of April 19, 2017 No. 176 "On the Strategy for Environmental Security of the Russian Federation until 2025". URL: <http://www.kremlin.ru/acts/bank/41879> (accessed 01 April 2025).

<sup>12</sup> Decree of the President of the Russian Federation of February 8, 2021 No. 76 "On measures to implement the state scientific and technical policy in the field of environmental development of the Russian Federation and climate change". URL: <https://base.garant.ru/400293112/> (accessed 01 April 2025).

<sup>13</sup> Resolution of the Government of the Russian Federation of February 8, 2022 No. 133 "On Approval of the Federal Scientific and Technical Program in the Field of Environmental Development of the Russian Federation and Climate Change for 2021–2030". URL: <https://www.garant.ru/products/ipo/prime/doc/403425684/#1000> (accessed 01 April 2025).

<sup>14</sup> Order of the Government of the Russian Federation of November 27, 2021 No. 3363-r "On the Transport Strategy of the Russian Federation until 2030 with a forecast for the period until 2035". URL: <https://docs.cntd.ru/document/727294161> (accessed 01 April 2025).

<sup>15</sup> Order of the Government of the Russian Federation of February 11, 2021 No. 312-z "On Approval of the Strategy for the Development of the Forest Complex of the Russian Federation until 2030". URL: <https://base.garant.ru/400335155/> (accessed 01 April 2025).

adaptation of FES organizations to climate change. These objectives are primarily aimed at reducing greenhouse gas emissions, which is entirely appropriate, as the FES as a whole ranks first in CO<sub>2</sub> emissions, while the gas industry also contributes to methane emissions. However, the document contains contradictory provisions. For instance, the strategy sets a target for the ratio of total greenhouse gas emissions by 2035 to the level of such emissions in 1990 at no more than 70–75%. This target is intended to address the challenge of adapting energy sector organizations to climate change<sup>16</sup>. Alternatively, the document establishes a plan to reduce the negative impact of FES industries on the environment and adapt them to climate change, while simultaneously highlighting Russia's significant contribution to the transition to a low-carbon development of the global economy<sup>17</sup>. It gives the impression that measures to reduce emissions are classified as adaptation measures, which is incorrect.

The Consolidated Strategy for the Development of the Manufacturing Industry of the Russian Federation until 2024 and for the period up to 2035<sup>18</sup> makes no mention of adaptation to climate change or of mitigation. This is a serious omission, as the production of machinery, including electric cars, and chemical and metallurgical products (cement, steel, aluminum, etc.) requires the adoption of new production standards that take climate change into account as a key external factor.

The Program for the Development of the Coal Industry in Russia until 2035 also ignores the issue of adaptation to climate change. Instead, mitigation measures are considered from the perspective of a risk factor for the development of both the domestic coal market and Russian coal exports<sup>19</sup>. At the same time, the subprogram "Ensuring Environmental Safety of the Coal Industry" highlights the monitoring of greenhouse gas emissions.

Thus, although not all of the Russian Federation's strategic planning documents contain provisions addressing the issue of adaptation to climate change, it can be stated that, since 2023, adaptation to climate change has become a higher priority in the Russian climate agenda compared to mitigating the consequences of climate change.

The second group of documents is represented by environmental legislation. The key regulatory legal act in this area is the Federal Law "On Environmental Protection" of 2002<sup>20</sup>. However, this law does not specifically identify climate as an object of legal protection. It makes no mention

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<sup>16</sup> Order of the Government of the Russian Federation of June 9, 2020, No. 1523-r "On Approval of the Energy Strategy of the Russian Federation until 2035". URL: <https://docs.cntd.ru/document/565068231> (accessed 01 April 2025).

<sup>17</sup> Ibid.

<sup>18</sup> Order of the Government of the Russian Federation of June 6, 2020, "On Approval of the Consolidated Strategy for the Development of the Manufacturing Industry of the Russian Federation until 2030 and for the Period until 2035". URL: <https://base.garant.ru/74242592/> (accessed 01 April 2025).

<sup>19</sup> Order of the Government of the Russian Federation dated June 13, 2020 No. 1582-r "On Approval of the Program for the Development of the Coal Industry of Russia until 2035". URL: <https://docs.cntd.ru/document/565123539> (accessed 01 April 2025).

<sup>20</sup> Federal Law of January 10, 2002 No. 7-FZ "On Environmental Protection". URL: <https://base.garant.ru/12125350/> (accessed 01 April 2025).

of adaptation to climate change or mitigation. Even greenhouse gases are not recognized as environmental risks or pollutants. The law completely ignores the issue of climate change.

If greenhouse gases are considered production and consumption waste, then the corresponding provision should be reflected in the Federal Law "On Production and Consumption Waste"<sup>21</sup>. However, this law has not defined the term either. Part 6 of Article 16 of the Federal Law "On Atmospheric Air Protection" introduced a provision prohibiting the design and construction of capital construction projects, the activities of which could lead to adverse climate change<sup>22</sup>. This provision conflicts with legislation that provides for the limitation, rather than prohibition, of greenhouse gas emissions (Krasnova, 2023).

There is no mention of adaptation in land, urban planning, forestry, mining or water legislation, despite the potential negative consequences of climate change on these sectors. For instance, as air temperatures rise, forest fires occur more frequently, the permafrost layer thins, infrastructure is damaged, and floods become more common; in southern regions, drought is a problem, which has a negative impact on the country's agricultural sector. In this regard, land and urban planning legislation should be revised to include a requirement for the assessment of weather and climate risks when siting construction projects, as well as specific construction requirements in areas at high risk of climate change (Krasnova, 2023). It is insufficient to merely include a provision on the need for adaptation measures in the strategies of a particular sector. The objectives and tasks of adaptation should be enshrined in law, a legal definition of the term should be provided, and the scope of entities and objects should be outlined. All of this seems appropriate to be reflected in the Federal Law "On Environmental Protection". Furthermore, the interpretation of the term "environmental impact assessment" should be expanded to include the obligation of the customer of the documentation to determine measures to reduce greenhouse gas emissions and measures to adapt to climate change. Adaptation and mitigation measures should also be included in the concept of "best available technology". Such clarification of the law's provisions will remove any doubts regarding the application of Article 17 of the Federal Law "On Environmental Protection", which provides for measures of state support for economic and (or) other activities carried out for the purposes of environmental protection (Krasnova, 2023).

Thus, adaptation to climate change, like mitigation, is not reflected in Russian environmental legislation, which is an oversight, given that greenhouse gases are emitted into the atmosphere, which is a component of the environment. Furthermore, climate change can be considered an environmental issue, as it entails certain environmental risks, including those associated with ecosystem imbalances.

The third group of documents primarily includes the Fundamentals of State Policy of the Russian Federation in the Arctic until 2035 (hereinafter referred to as the Fundamentals). The Fun-

<sup>21</sup> Federal Law of June 24, 1998 No. 89-FZ "On Production and Consumption Waste". URL: <https://base.garant.ru/12112084/> (accessed 01 April 2025).

<sup>22</sup> Federal Law of May 04, 1999 No. 96-FZ "On the Protection of Atmospheric Air". URL: <https://base.garant.ru/12115550/> (accessed 01 April 2025).

damentals identify the development of a scientifically based network of specially protected natural areas (SPNAs) and water areas to preserve ecological systems and adapt them to climate change as key objectives in environmental protection and environmental security in the region<sup>23</sup>. This task is particularly relevant, as the accelerated warming of the Arctic region is increasing the anthropogenic pressure on the ecosystem due to the intensification of mining activities and shipping along the Northern Sea Route (NSR). Designating certain areas as specially protected areas will help to preserve the unique local flora and fauna and the traditional way of life of the indigenous peoples of the North.

Measures to adapt to climate change can also be found among the objectives in the field of science and technology advancement for the development of the Arctic; for example, the development and implementation of modern methods and technologies for predicting hazardous natural and technogenic phenomena in the Arctic and the use of effective engineering solutions to prevent damage to infrastructure elements in a changing climate (Kudelkin, 2022). These tasks can be considered as adaptation measures, since due to the increase in air temperature in the Arctic, permafrost is melting, which entails the destruction of infrastructure facilities located on such soils, including industrial facilities. Accidents at the latter could lead to an environmental disaster similar to the Norilsk disaster in 2020. Furthermore, the number of hazardous hydrometeorological events is increasing, which can also damage social and housing infrastructure, as well as industrial enterprises. Therefore, monitoring and forecasting hazardous natural events and developing cutting-edge construction technologies will enable adaptation to ongoing climate change in the Arctic.

International cooperation in the Arctic is not limited to issues of regional development, mineral extraction, and navigation along the NSR; it also addresses the pressing issue of climate change. Thus, the Fundamentals provide for joint research with other countries on climate change, including on adaptation.

Another important document aimed at the socio-economic development of the AZRF is the Strategy for the Development of the Arctic Zone of Russia and Ensuring National Security until 2035 (hereinafter referred to as the Strategy). The document notes that climate change in the region may lead both to the emergence of new economic opportunities and to risks for economic activity and the environment<sup>24</sup>. However, it is important to understand that natural risks are exacerbated by the intensification of economic activity in the region due to warming and the opening up of opportunities for the extractive industry, transport and tourism. Paragraph 5(d) of the Strategy explicitly refers to the increasing importance of the Northern Sea Route as a transport corridor of global significance as a result of climate change. Paragraph 5(e) of the Strategy directly address-

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<sup>23</sup> Decree of the President of the Russian Federation of March 5, 2020 No. 164 "On the Fundamentals of the State Policy of the Russian Federation in the Arctic until 2035". URL: <https://base.garant.ru/73706526/> (accessed 01 April 2025).

<sup>24</sup> Decree of the President of the Russian Federation of October 26, 2020 No. 645 "On the Strategy for the Development of the Arctic Zone of Russia and Ensuring National Security until 2035". URL: <https://base.garant.ru/74810556/> (accessed 01 April 2025).

es the risks to Russia's economic system, environment and security posed by human activities, including their intensification, in conjunction with climate change in the region.

Adaptation of the AZRF economy and infrastructure to climate change<sup>25</sup> is listed among the key objectives in the Strategy for environmental protection and environmental safety. However, adaptation measures can also be found in the text of the document. For example, the Strategy, like the Fundamentals, refers to the development and implementation of engineering and technical solutions to ensure the sustainable operation of infrastructure in the context of climate change (paragraph 13(l)), and the development of a comprehensive plan for international scientific research into global climate change in the Arctic (paragraph 14(d)). Social adaptation measures should include eliminating risks to public health caused by climate change, including infectious and parasitic diseases (paragraph 11(p)). Climate change entails a shift of climatic zones northwards, which has a significant impact on the spread of infectious diseases vectors. Ticks, mosquitoes and other insects are moving into northern territories, creating a threat of epidemics and epizootics. Thawing of permafrost may lead to the exposure of ancient animal burial sites, thereby causing mass diseases in humans and animals.

An important objective is to raise awareness among government agencies and the public about the emergence or increasing risks of negative impacts of the most hazardous pollutants, including microorganisms, on the environment and public health in connection with emergencies caused by climate change<sup>26</sup> (paragraph 15(o)). This provision (Kudelkin, 2022) is directly linked to the constitutional right of citizens, enshrined in Article 42 of the Constitution of the Russian Federation, to declare reliable information about the state of the environment. Furthermore, since citizens are recognized as subjects of climate policy implementation according to the provisions of the Climate Doctrine, local residents also have the right (and perhaps even the obligation, as this depends on the interpretation of the doctrine's provisions) to provide information on local microclimate changes (water levels in rivers, ice formation, breakup of rivers, etc.). For people living in the harsh natural and climatic conditions of the Far North, having reliable and up-to-date environmental and climate information is crucial. The health and lives of local residents depend on it.

Therefore, specialized documents devoted to the development of the Arctic zone of the Russian Federation contain provisions addressing the issue of adaptation to climate change in this region.

The fourth group of regulatory legal acts directly regulates issues of adaptation to climate change. This package of documents began to be compiled in 2019, the year the national action plan for the first phase of adaptation to climate change for the period up to 2022 was adopted.

The National Action Plan for Adaptation of Russia to Climate Change until 2022 was signed on December 25, 2019. The plan contains 28 measures, divided into sections: federal (15

<sup>25</sup> Decree of the President of the Russian Federation of October 26, 2020 No. 645 "On the Strategy for the Development of the Arctic Zone of Russia and Ensuring National Security until 2035". URL: <https://base.garant.ru/74810556/> (accessed 01 April 2025).

<sup>26</sup> Ibid.

measures) and sectoral (13 measures). The main activities presented are preparatory and introductory: clarification of the composition of the Government Commission on Nature Management and Environmental Protection, analysis of the regulatory framework, development of methodological recommendations, etc. Only 2 activities are aimed at practical actions: improving the climate monitoring network and integrating knowledge about climate change and adaptation measures into federal state educational standards for general and secondary vocational education (Veselova, 2024). Furthermore, the plan includes a provision for the adoption of sectoral and regional climate change adaptation plans by the end of 2022. For this purpose, on May 13, 2021, the Ministry of Economic Development of Russia approved the Methodological Recommendations for the Formation of Sectoral, Regional and Corporate Climate Change Adaptation Plans<sup>27</sup>, which recommend a standard format for climate change adaptation plans and a report on the progress of their implementation. It is specifically stated that adaptation actors are to prepare and submit adaptation plans and progress reports to the Ministry of Economic Development of Russia on a voluntary basis<sup>28</sup>.

In March 2023, the national action plan for the second stage of adaptation to climate change for the period up to 2025 was approved<sup>29</sup>. The activities set out in the Plan are presented by federal, sectoral, and regional blocks. Within the federal block, 14 measures are planned for implementation. Many of them are practice-oriented. For the first time, the need to improve mechanisms for insurance and reinsurance of risks from climate disasters is mentioned (Veselova, 2024). The document highlights measures such as identifying best practices in corporate governance regarding climate strategy, promoting Russian approaches to climate change adaptation at multilateral international forums, and testing a model for assessing physical climate risks for industry, infrastructure and macro-economic parameters. Provisions have been established regarding the introduction of new educational programs, including vocational retraining and professional development, in the field of climate risks and adaptation to climate change across various sectors of the economy (Veselova, 2024). The sectoral block is represented by only one measure — updating federal sectoral adaptation plans. Within the regional block, the Government of the Russian Federation has identified two measures: updating regional adaptation plans and monitoring the condition and stability of soils within populated areas and industrial facilities in the AZRF<sup>30</sup>. Thus, the measures set out in the plan are aimed at addressing pressing issues affecting Russia's economy and social sector in the context of combating climate change. Resolving such issues through the implementation of these measures will provide a significant boost both to the business community and to Russian society as a whole.

<sup>27</sup> Order of the Ministry of Economic Development of Russia dated May 13, 2021 No. 267 "On approval of methodological recommendations and indicators on adaptation to climate change". URL: <https://docs.cntd.ru/document/603604566> (accessed 01 April 2025).

<sup>28</sup> Ibid.

<sup>29</sup> Order of the Government of the Russian Federation of March 11, 2023, No. 559-r "On approval of the national action plan for the second stage of adaptation to climate change for the period up to 2025". URL: <https://www.garant.ru/products/ipo/prime/doc/406426879/> (accessed 01 April 2025).

<sup>30</sup> Ibid.

Furthermore, regulatory legal acts issued by the relevant executive authorities have approved 10 plans for adapting various types of economic activity to climate change, identifying priority measures based on an assessment of climate risks. Among these plans, a climate change adaptation plan for the Arctic zone of the Russian Federation was adopted in November 2021<sup>31</sup>. The plan is presented in a standard format. It describes climate risks and the results of their assessment, presents the results of the impact of climate factors on the Arctic zone of the Russian Federation, a list of priority adaptation measures (11), and the results of their ranking. In particular, it envisaged the creation of an interdepartmental working group on adaptation to climate change in the AZRF. However, there is no information in open sources regarding the formation of this institution, its powers, composition, etc. The plan also provides for the preparation of various reports and the development of recommendations in this area. Sections 3 and 4 contain practice-oriented measures related to the sustainable operation of infrastructure and the protection of local residents' health. It is worth noting that some measures are actually being implemented. For example, a roadmap for the implementation of engineering and technical solutions to ensure the sustainable operation of infrastructure in the face of climate change was developed back in 2022<sup>32</sup>.

Analyzing the provisions of plans in other sectors, it is worth noting that the adaptation plans in the areas of ensuring the sanitary and epidemiological well-being of the population and the agro-industrial complex and fisheries are only designed for 2022. However, the plan for the agro-industrial complex and fisheries is detailed (it thoroughly describes the characteristic climate risks and substantively outlines 16 measures for 2022), while the plan for ensuring the sanitary and epidemiological well-being of the population is abstract. Climate risks are generalized, as well as the measures, and no risk assessment is provided. The least developed plans, with a minimal number of general adaptation measures, an abstract description of the specific climate risks for the industry, and no assessment of them, are those in the areas of environmental management (7 measures) and healthcare (7 measures).

The climate change adaptation plans for the transport sector should be considered thoroughly developed (climate risks and their assessment results are described in detail, detailed information on the recorded damage resulting from their impact is provided, and specific adaptation measures are defined and ranked), as well as for the industrial sector and foreign trade (14 measures, although the assessment of climate risks was not carried out in accordance with all recommended parameters), civil defense, and the protection of the population and territories from natural and man-made emergencies (10 measures with detailed descriptions are defined, a thoroughly described climate risk assessment is provided for specific territories for which a particular

<sup>31</sup> Order of the Ministry for the Development of the Russian Far East dated November 26, 2021 No. 221 "On approval of the Climate Change Adaptation Plan for the Arctic Zone of the Russian Federation". URL: [https://www.consultant.ru/document/cons\\_doc\\_LAW\\_401837/555bd87d9870e23a2ddac9eab2ade2008dd1a1dc/](https://www.consultant.ru/document/cons_doc_LAW_401837/555bd87d9870e23a2ddac9eab2ade2008dd1a1dc/) (accessed 01 April 2025).

<sup>32</sup> A conference on adaptation to climate change in the Arctic was held in St. Petersburg. URL: <https://forumarctica.ru/news/v-sankt-peterburge-sostojalas-konferentsija-po-adaptatsii-k-izmeneniju-klimata-v-arktike/> (accessed 01 April 2025).

adaptation entity is responsible, and a ranking of adaptation measures is provided depending on the adaptation entity and territory).

Not all the measures specified in the plans have been implemented by 2025, despite the deadlines set out in the plans. For example, analytical centers on climate change adaptation have not been established at the Russian Ministry of Construction and the Russian Ministry of Energy. However, some measures are being implemented. For example, a national standard for industry benchmarking of specific greenhouse gas emissions in industrial sectors was supposed to be developed by December 2022. The standard was approved in March 2022. Therefore, the provisions of some sectoral climate change adaptation plans should be reviewed and revised to take into account new research and development results in this area.

By 2025, 75 constituent entities of the Russian Federation have developed and approved climate change adaptation plans, including those whose territories are fully or partially located within the AZRF (hereinafter referred to as Arctic constituent entities). These constituent entities include the entire Murmansk Oblast, the Nenets Autonomous Okrug, the Chukotka Autonomous Okrug, and the Yamalo-Nenets Autonomous Okrug (YaNAO), and partially the Republics of Karelia, Komi, and Sakha (Yakutia), the Krasnoyarsk Krai, and the Arkhangelsk Oblast. In March 2024, two municipalities of the Khanty-Mansi Autonomous Okrug (KhMAO) were added to the list. Climate change adaptation plans were adopted by the Arkhangelsk Oblast, the Republics of Komi, Karelia, and Yakutia, Krasnoyarsk Krai, the YaNAO, and the KhMAO<sup>33</sup>. The constituent entities mainly used the proposed standard plan form, with the exception of the Arkhangelsk Oblast, which included only a list of priority adaptation measures. Yakutia's climate change adaptation plan contains a record number of measures. Overall, the greatest number of climate change adaptation measures are envisaged in such sectors as agriculture (measures aimed at promoting insurance against agricultural risks of crop loss, livestock loss, etc.), energy (conversion of coal and fuel oil boilers to natural gas, use of renewable energy sources), transport (conversion of motor vehicles to natural gas and development of urban electric transport), forestry (reforestation, afforestation), conservation of the natural environment, ensuring environmental safety (ex-

<sup>33</sup> Order of the Government of the Arkhangelsk Oblast dated 03 November 2022 No. 742-rp "On approval of the regional plan for adaptation to climate change". URL: <https://docs.cntd.ru/document/406531108>; Order of the Government of the Komi Republic dated 14 March 2023 No. 119-r "On approval of the regional plan for adaptation of the Komi Republic to climate change". URL: <https://docs.cntd.ru/document/406556282>; Order of the Government of the Republic of Karelia dated 24 March 2023 No. 254r-P "On approval of the plan for adaptation to climate change in the Republic of Karelia". URL: <https://docs.cntd.ru/document/465432859>; Order of the Government of the Republic of Sakha (Yakutia) dated 01 July 2022 No. 567-r "On the regional plan for adaptation to climate change in the Republic of Sakha (Yakutia) for the period up to 2025 and for the perspective up to 2050". URL: <https://docs.cntd.ru/document/406133873>; Order of the Government of Krasnoyarsk Krai dated 10 August 2023 No. 565-r "On approval of the plan for adaptation to climate change in the territory of Krasnoyarsk Krai". URL: <https://docs.cntd.ru/document/406768446>; Order of the Government of the Yamalo-Nenets Autonomous Okrug dated 19 December 2022 No. 1281-RP "On the regional plan for adaptation to climate change". URL: <https://docs.cntd.ru/document/406396822/titles/HOCCFE>; Resolution of the Government of the Khanty-Mansi Autonomous Okrug – Yugra dated December 30, 2021 No. 633-p "On measures to implement the state program of the Khanty-Mansi Autonomous Okrug – Yugra "Development of Economic Potential"". URL: <https://docs.cntd.ru/document/578039918/titles/29OIKSP> (accessed 01 April 2025).

pansion of the network of SPNAs, environmental monitoring), emergency prevention (modernization of the public warning system, monitoring and forecasting of emergency situations), and conservation of water bodies (restoration and environmental rehabilitation of water bodies, monitoring their condition). The adaptation plans of the Republic of Karelia, the Krasnoyarsk Krai, the YaNAO, and the KhMAO also outline measures related to improving healthcare in response to the invasion of pathogenic organisms and other negative consequences of climate change affecting public health. However, the YaNAO also proposed a general provision on transitioning to a healthy diet and reducing alcohol and tobacco consumption, which is not related to climate change in the region. Almost all the regions under consideration, with the exception of the Arkhangelsk Oblast and the Krasnoyarsk Krai, are prepared to implement measures to improve environmental awareness among the population. The Arkhangelsk Oblast, the Krasnoyarsk Krai, and the YaNAO also envisaged specific measures in the construction sector, primarily related to taking climate risks into account during construction and the implementation of new technologies. Overall, the climate change adaptation plans of the regions under consideration include measures in areas most vulnerable to climate risks.

In 2023, the Agency for Strategic Initiatives conducted an expert assessment of climate adaptation reports from 51 regions. The assessment focused on the quality and relevance of the adaptation measures. It was found that in most regions, a significant proportion of the proposed adaptation measures did not qualify as such, as these measures were not related to climate change and its consequences (Anisimov, Badina, 2024). An example of this was given earlier. In addition, examples include the development and implementation of the Arkhangelsk Oblast state program "Restoration of the White Sea Basin Rivers"; cleaning the banks of water bodies in the KhMAO from household waste and wood debris; reducing water leaks in the water supply systems of populated areas of Yakutia. There are many such examples in the text of the adaptation plans of the Arctic regions. A low proportion of measures with quantitative indicators in the description was also noted (Anisimov, Badina, 2024), as is evident from the content of the plans. In their scientific work, O.A. Anisimov and S.V. Badina attribute the identified problems to institutional specifics and the development of plans in accordance with a recommended standard format, which has made the majority of plans almost identical to each other (Anisimov, Badina, 2024). Furthermore, the authors note the schematic nature of the adaptation plans without the necessary specifics (Anisimov, Badina, 2024). The author fully shares the point of view of O.A. Anisimov and S.V. Badina. Another shortcoming is the lack of mention in the plans of the indigenous peoples of the North, who are primarily affected by the negative consequences of climate change. For example, adaptation measures could include the introduction of a compulsory insurance scheme, supported by the state and offering preferential terms, to cover reindeer against loss due to dangerous hydrometeorological phenomena and mortality from diseases brought by invasive species, or the opening of cattle burial grounds as the permafrost thaws; the development of telemedicine in response to late ice formation and early ice break-up.

However, despite shortcomings, the adaptation measures outlined in the plans and related to climate change are relevant, feasible, and are already being implemented. Thus, the area of restored forests in the Arctic regions is increasing every year, and consequently, the carbon sequestration capacity of forest ecosystems is growing, which contributes to Russia's international commitments to reduce greenhouse gas emissions and also has a positive impact on the health of Russians. In January 2025, the Russian Ministry of Construction approved a new version of the foundation design rules for buildings constructed in permafrost conditions in the AZRF at the federal level. These changes allow for the consideration of changes in the mechanical properties of the soil after freezing and subsequent thawing, which will enable the construction of durable buildings and structures in the AZRF and ensure the safety of both local residents and companies operating in the Arctic Zone. The number of hydrometeorological stations and posts in the Russian Arctic is increasing, and data from hydrometeorological satellites is being used. This allows for more thorough monitoring of dangerous hydrometeorological phenomena, man-made emergencies, and environmental conditions, thereby raising awareness among government agencies, companies, and the public. The effectiveness of established and implemented measures depends on many factors, including the timeliness and completeness of their implementation, which is linked to the activities of the relevant stakeholders in this area.

In general, we recommend revising regional climate change adaptation plans for Arctic regions by eliminating activities unrelated to climate change adaptation, specifying adaptation measures and incorporating quantitative indicators, adding measures related to maintaining health, traditional way of life and customs of indigenous peoples of the North, taking into account local specifics.

By the end of 2025, a new three-year action plan for adaptation to climate change at the federal and regional levels is planned to be submitted to the Russian Government <sup>34</sup>.

Thus, Russia has a specific legal framework addressing the issue of adaptation to climate change both nationwide and in the Russian Arctic zone.

### ***Russian institutions responsible for implementing adaptation policy in the country***

The institutional framework of Russia's climate change adaptation policy comprises political actors whose responsibilities include implementing and overseeing adaptation policy; that is, government bodies, political and civil society organizations and institutions, business entities, and citizens.

The primary official responsible for implementing climate policy in Russia is the Advisor to the President of the Russian Federation and the Special Representative of the President of the Russian Federation on Climate Issues. The position of Advisor to the President of the Russian Federation on Climate Change was established in 2009 (the year the Climate Doctrine of the Rus-

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<sup>34</sup> A new action plan for adaptation to climate change will be presented in 2025. URL: <https://www.expoforum.ru/news/novyj-plan-meroprijatij-po-adaptacii-k-izmenenijam-klimata-predstavjat-v-2025-godu/> (accessed 01 April 2025).

sian Federation was adopted). Since 2010, the position has been known as the Special Representative of the President of the Russian Federation on Climate Issues. Since 2018, this post has been held by R. S.-Kh. Edelgeriev (reappointed in May 2024). He represents Russia on the international stage on climate issues and the country's fulfilment of its international obligations in this area. Thus, in November 2024, he was the head of the Russian delegation at the 29th session of the Conference of the Parties to the UN Framework Convention on Climate Change (COP29) in Baku, during which he held bilateral negotiations with representatives of more than 20 countries. In February 2025, R. S.-Kh. Edelgeriev took part in the Climate Forum "New Challenges of Global Climate Policy: Opportunities and Risks for Business", organized by the Russian Union of Industrialists and Entrepreneurs (RSPP). The Minister of Economic Development of the Russian Federation also participated in the forum, stating the need to actively address adaptation issues<sup>35</sup>. Thus, interaction between government agencies and business representatives takes place through their participation in public events.

R. S.-Kh. Edelgeriev heads the Interdepartmental Working Group on issues relating to climate change and sustainable development. The working group was established in December 2012. Its main tasks involve coordination and ensuring cooperation between government bodies, civil society organizations and scientific institutions. Furthermore, its work is aimed at promoting Russia's interests on climate change issues within influential international organizations (BRICS)<sup>36</sup>. It comprises 50 members, mainly representing government bodies, but also includes representatives from non-profit organizations and the business community, which gives this body a bridging role between government bodies and the public. The 43rd meeting of the Working Group was held in February 2025.

It is worth highlighting the executive bodies with the authority to address climate change adaptation. For instance, the Ministry of Economic Development of the Russian Federation is responsible for collecting information on the implementation of climate change adaptation measures carried out by federal and regional executive bodies<sup>37</sup>. Within the scope of its competence, the Ministry issues orders, approves methodological guidelines and indicators relating to climate change adaptation, or to the monitoring and evaluation of the effectiveness and efficiency of climate change adaptation measures, etc. In this way, the Ministry coordinates the work of other executive bodies on matters of climate change adaptation.

The Ministry of Foreign Affairs of the Russian Federation represents Russia's interests on climate change in general, and adaptation to it in particular, in international organizations and at

<sup>35</sup> At the RSPP Climate Forum, strategic approaches to implementing national climate policy were discussed. URL: <https://rspp.ru/events/news/na-klimaticheskoy-forume-rspp-obsudili-strategicheskie-podkhody-k-realizatsii-natsionalnoy-klimaticheskoy-politiki-67b04e91f2be1/> (accessed 21 April 2025).

<sup>36</sup> Interdepartmental Working Group on issues related to climate change and sustainable development. URL: <http://www.kremlin.ru/structure/administration/groups#institution-1003> (accessed 01 April 2025).

<sup>37</sup> Climate policy. URL: [https://www.economy.gov.ru/material/directions/investicionnaya\\_deyatelnost/obespechenie\\_razvitiya\\_ekonomiki\\_v\\_usloviyah\\_izmeneniya\\_klimata/klimaticheskaya\\_politika/](https://www.economy.gov.ru/material/directions/investicionnaya_deyatelnost/obespechenie_razvitiya_ekonomiki_v_usloviyah_izmeneniya_klimata/klimaticheskaya_politika/) (accessed 01 April 2025).

conferences, and is engaged in the development of international relations with other states in this area (Veselova, 2021). In May 2024, R. S.-Kh. Edelgeriev, together with the Deputy Minister of Foreign Affairs of the Russian Federation, held consultations with the Minister of Ecology and Natural Resources of Azerbaijan on issues related to the organization of COP-29<sup>38</sup>.

The Ministry of Natural Resources and Environment of the Russian Federation monitors climate change in Russia and implements international cooperation on this issue (Veselova, 2021). The Ministry includes the Department of Hydrometeorology and Climate Change, which specializes in studying and addressing climate change-related issues<sup>39</sup>.

The Federal Service for Hydrometeorology and Environmental Monitoring (Roshydromet) is a subordinate agency of the Ministry of Natural Resources and Environment of the Russian Federation and therefore provides the necessary materials for its activities based on requests from department directors. This institution ensures Russia's fulfillment of its obligations under the UN Framework Convention on Climate Change and organizes and compiles forecasts of global and regional climate change<sup>40</sup>. Roshydromet also provides information on current and potential climate change in the country to other government agencies, companies, scientific organizations, and the public.

In February 2021, the Council for the Implementation of the Federal Scientific and Technical Program in the Field of Environmental Development of the Russian Federation and Climate Change for 2021–2030 was established. The Council's responsibilities include preparing proposals for the President of the Russian Federation and the Chairman of the Government of the Russian Federation on scientific and technical activities in the field of climate change, coordinating the measures included in the program and implemented as part of national projects, as well as overseeing the review of reports within the framework of the program's implementation<sup>41</sup>. The Council comprises 29 representatives from government bodies, scientific institutions, and the business sector. In June 2023, the Council approved the Provisional List of Climate-Active Substances as part of the Unified National System for Monitoring Climate-Active Substances project, for which Roshydromet and the Ministry of Economic Development of the Russian Federation are responsible. Roshydromet's departments and scientific organizations are guided by this list.

<sup>38</sup> Media release. URL: [https://mid.ru/ru/foreign\\_policy/ecology/1948822/](https://mid.ru/ru/foreign_policy/ecology/1948822/) (accessed 21 April 2025).

<sup>39</sup> About the Ministry of Natural Resources and Environment of the Russian Federation. URL: [https://www.mnr.gov.ru/about/departments/upravlenie\\_v\\_oblasti\\_gidrometeorologii\\_i\\_klimaticheskikh\\_izmeneniy/](https://www.mnr.gov.ru/about/departments/upravlenie_v_oblasti_gidrometeorologii_i_klimaticheskikh_izmeneniy/) (accessed 01 April 2025).

<sup>40</sup> About the Federal Service for Hydrometeorology and Environmental Monitoring. URL: <https://www.meteorf.gov.ru/about/service/> (accessed 01 April 2025).

<sup>41</sup> Decree of the President of the Russian Federation of 08 February 2021 No. 76 "On measures to implement the state scientific and technical policy in the field of environmental development of the Russian Federation and climate change" (together with the "Regulations on the council for the implementation of the Federal scientific and technical program in the field of environmental development of the Russian Federation and climate change for 2021-2030"). URL: [https://base.garant.ru/400293112/#block\\_1000](https://base.garant.ru/400293112/#block_1000) (accessed 01 April 2025).

The Federal Scientific and Technical Program itself was approved by Russian Government Resolution No. 133 of February 8, 2022. The Ministry of Natural Resources and Environment of Russia was appointed as the coordinating body. The Ministry of Economic Development of Russia, the Ministry of Science and Higher Education of the Russian Federation, and Roshydromet are the responsible implementing agencies. Co-implementing agencies include interested federal and regional executive bodies, research institutions, and higher education institutions<sup>42</sup>. Thus, the Council's work on implementing the program involves collaboration between various ministries and a number of relevant non-profit organizations.

Since 2019, the Federation Council Committee on Agrarian and Food Policy and Natural Resources Management has been responsible for monitoring the implementation of climate policy in the country. Its responsibilities include developing long-term measures to adapt to climate change in Russia. In November 2024, a meeting on the implementation of the national action plan for adaptation to climate change was held. It was attended by Russian senators, representatives of the Ministry of Economic Development, the Ministry of Natural Resources, the Federal Forestry Agency, representatives of the constituent entities of the Russian Federation, and the scientific and expert community<sup>43</sup>. The Committee is also responsible for parliamentary oversight of Russia's climate policy.

The State Duma of the Russian Federation established the Committee on Ecology, Natural Resources, and Environmental Protection, which discusses climate policy, climate change issues, and adaptation<sup>44</sup>. In 2023, the Committee and the Russian Academy of Sciences (RAS) agreed to cooperate on climate change issues. In particular, the RAS was tasked with providing expert support for the discussion of climate-related legislative initiatives<sup>45</sup>. As part of its parliamentary oversight, the Committee also receives reports from ministers, including on the implementation of measures related to adaptation to climate change.

Representatives of Russia's business community are also engaged in addressing climate issues. For example, the Council for the Development of the Circular Economy and Ecology was established under the Chamber of Commerce and Industry of the Russian Federation (CCI RF). Waste management can also be considered an adaptation measure. However, the CCI RF is more interested in the carbon credit market. The Committee on Climate Policy and Carbon Regulation was established under the Russian Union of Industrialists and Entrepreneurs (RSPP). The Committee participated in the development and implementation of industry adaptation plans to cli-

<sup>42</sup> Resolution of the Government of the Russian Federation of February 8, 2022 No. 133 "On approval of the Federal Scientific and Technical Program in the Field of Environmental Development of the Russian Federation and Climate Change for 2021–2030." URL: <https://www.garant.ru/products/ipo/prime/doc/403425684/> (accessed 01 April 2025).

<sup>43</sup> V. Pushkarev held a meeting on the implementation of the national action plan for adaptation to climate change. URL: [http://council.gov.ru/events/news/1623\\_36/?hl=%D0%BA%D0%BB%D0%B8%D0%BC%D0%B0%D1%82](http://council.gov.ru/events/news/1623_36/?hl=%D0%BA%D0%BB%D0%B8%D0%BC%D0%B0%D1%82) (accessed 21 April 2025).

<sup>44</sup> State Duma Committee on Ecology, Natural Resources, and Environmental Protection. Regulations and terms of reference. URL: <http://komitet-ekol.duma.gov.ru/about/polozenie-i-voprosy-vedeniya> (accessed 01 April 2025).

<sup>45</sup> The State Duma Committee on Ecology and the Russian Academy of Sciences have agreed to cooperate. URL: <http://komitet-ekol.duma.gov.ru/novosti/d7752663-1b76-436d-a900-be3983fb5820> (accessed 21 April 2025).

mate change and in the creation of a register of best corporate adaptation practices<sup>46</sup>. The Committee on Forestry and Sustainable Development (aimed at minimizing greenhouse gas emissions<sup>47</sup>) and the Committee on Waste Recycling and Secondary Resources (waste recycling is an adaptation measure) were established under the All-Russian public organization Delovaya Rossiya. They interact with government agencies through official events, as previously mentioned.

In the Arctic zone of the Russian Federation, the State Commission for Arctic Development is responsible for preserving and protecting the region's natural environment in the face of increasing economic activity and global climate change. However, the commission does not have direct authority over the implementation of climate policy in general or climate change adaptation policy in particular.

The Ministry of the Russian Federation for the Development of the Far East and Arctic is the specialized government body implementing policy in the Russian Arctic. It developed and approved the climate change adaptation plan for the AZRF. However, it does not have direct authority over the implementation of climate policy in the Arctic and is not a member of the Inter-departmental Working Group on issues related to climate change and sustainable development. The Ministry also does not participate in climate change-related events.

Thus, based on the examples of joint activities between legislative and executive authorities with the participation of business representatives and non-profit organizations, it may be confidently stated that there is active cooperation between these actors on the issue of climate change adaptation. The main channels for interaction between the institutions under consideration are official events (conferences, forums), procedures within the framework of parliamentary oversight, and participation in the Working Group and the Council. The interaction between these actors mainly takes the form of information exchange. However, activities are being implemented within the framework of the innovative national project Unified National System for Monitoring Climate-Active Substances.

Russia has not established a specialized body responsible for implementing climate change adaptation measures, either nationally or in the AZRF. Therefore, the author proposes assigning such powers to the Ministry of Natural Resources and Environment of Russia at the federal level and to the Ministry for the Development of the Russian Far East in the Arctic region. Supervisory functions in this area could be assigned to Roshydromet, expanding its remit.

### **Conclusion**

By 2025, a certain legal framework had been established in Russia in the field of climate change adaptation. This framework consists primarily of adaptation plans at federal and re-

<sup>46</sup> Committee on Climate Policy and Carbon Regulation. URL: [https://rspp.ru/docs/committee/RSPP\\_CCPCP\\_RU.pdf](https://rspp.ru/docs/committee/RSPP_CCPCP_RU.pdf) (accessed 01 April 2025).

<sup>47</sup> Committee on Forests and Sustainable Development. URL: <https://www.deloros.ru/komitety/komitet-po-lesu-i-ustoychivomu-razvitiyu/> (accessed 01 April 2025).

gional levels, as well as sector-specific plans. At the legislative level, adaptation to climate change is not enshrined in any regulatory legal act. Therefore, it is necessary to provide a legal definition of adaptation, establish its goals and objectives, and outline the range of subjects and objects. In this regard, it seems appropriate to amend the Federal Law "On Environmental Protection". Reviewing the provisions of documents dedicated to ensuring national security in the Arctic zone of the Russian Federation and its socio-economic development, it is worth noting the presence of regulations affecting the issue of adaptation to climate change in this region of the country.

Climate change adaptation plans developed by Arctic regions have numerous shortcomings, primarily due to the fact that they include measures that are not adaptation-oriented, as they do not address climate change and its consequences, but are generally aimed at ensuring environmental safety in general. Furthermore, when describing the results of adaptation measures, quantitative indicators are often missing; the measures are only general in nature, without any detail. A serious omission is the lack of mention of the adaptation of indigenous peoples of the North to climate change. Indigenous peoples account for 9% of the population of the AZRF<sup>48</sup>. Therefore, we propose adopting a separate climate change adaptation plan for indigenous peoples of the North or incorporating measures dedicated to their adaptation into existing plans, taking into account regional and local specifics.

A special post has been established for the Special Representative of the President of the Russian Federation on Climate Issues. Executive and legislative authorities also possess specific competences in this area. Nevertheless, only the Ministry of Economic Development of Russia (Gulev, Solovyev, 2024), the committees of the Federation Council and the State Duma have powers in the field of climate change adaptation set out in a separate clause.

The Committee on Climate Policy and Carbon Regulation at the Russian Union of Industrialists and Entrepreneurs (RSPP) is involved in developing proposals and recommendations for Russia's adaptation policy, demonstrating the interest of Russian business representatives in implementing climate change policy. Scientific and educational institutions are also empowered to participate in the implementation of Russia's climate change adaptation policy. There is active interaction between the actors under consideration on issues of climate change adaptation. However, at this stage, the interaction is primarily limited to the exchange of information between institutions.

Currently, no specialized body responsible for implementing climate change adaptation policy has been established, either nationally or in the Russian Arctic, which is a shortcoming. Such authority should be separately assigned to the Ministry of Natural Resources and Environment at the federal level and to the Ministry for the Development of the Russian Far East in

<sup>48</sup> The Arctic in Numbers, 2024. URL: <https://roscongress.org/materials/arktika-v-tsifrakh/#:~:text=В%20Арктике%20проживает%200%2C07,от%20численности%20населения%20мировой%20Арктики>. (accessed 01 April 2025).

the AZRF. Supervisory functions in this area could be assigned to Roshydromet, expanding its scope of authority.

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