ORIGINAL PAPER

DOI: 10.26794/2220-6469-2024-18-3-125-137
UDC 339.976(045)
JEL E62, G30, G38

Climate Agenda in Russia: Shifting Guidelines and New Challenges

T.V. Zavyalova
PJSC Sberbank, Russia, Moscow

ABSTRACT

The changing of a geopolitical situation and a reorientation of Russian exports to the East were starting an adjustment the climate agenda took place in Russia, which determined the relevance of the research topic. The shift in the primary drivers of the agenda, coupled with the potential for adverse effects on the Russian real economy due to the implementation of cross-border carbon regulations within the European Union, has extended the duration of the transformational process. However, the commitment to transitioning towards a more environmentally friendly approach remains unchanged. In light of the observed change in business focus, the advancement of the climate agenda requires significant efforts from the government. Carbon neutrality and high environmental standards is economically feasible in the medium and long term. At the same time, Russia's new key partners in the East are actively interacting with the West, which encourages them to act in line with Carbon Border Adjustment Mechanism. Therefore, these standards will eventually extend to Russian companies. The "green" transformation in domestic industries will mitigate the potential dangers of stricter carbon regulations in the East, while also providing additional competitive advantages for the Russian economy.

Keywords: climate agenda; transboundary regulation; ESG; sustainable development; CBAM

For citation: **Zavyalova T.V. Climate agenda in Russia: Shifting guidelines and new challenges.** ***The world of the new economy.*** **2024;18(3):125-137. DOI: 10.26794/2220-6469-2024-18-3-125-137**

INTRODUCTION

Since 2020, the development of a national climate agenda has become a subject of heightened discourse in Russia, catalyzed by the announcement of the European Union's (EU) Carbon Border Adjustment Mechanism (CBAM). This regulatory framework was anticipated to exert a significant impact on the Russian economy, given that the nation's exports to the EU predominantly consisted of carbon-intensive[1] goods, such as oil, gas, fertilizers, and metals. In 2021, exports to the EU accounted for 40% of Russia's total export volume in monetary terms.[2]

Russian exporters, in most cases, did not comply with carbon neutrality standards, rendering them subject to the proposed tax. Consequently, the introduction of CBAM was expected to impose considerable financial burdens, including significant reductions in the net profits of affected enterprises. Even in 2020, prior to the finalization of the regulatory parameters, preliminary estimates suggested that the potential economic impact on Russia, based on the existing EU Emission Trading System[3] (EU ETS), could reach between $ 3 billion and $ 5 billion annually [1].

The publication of the first official draft of CBAM legislation on July 14, 2021, occurred within the framework of the EU's "Fit for 55" initiative, (a plan to follow "green agenda[4]") which aimed to establish regulatory measures to achieve a 55% reduction in greenhouse gas emissions by 2030 relative to 1990 levels. Following the release of the draft legislation, revised projections of the potential economic impact on the Russian Federation were provided. Analysts from the Boston Consulting Group (BCG), who had initially estimated annual losses to the Russian economy from CBAM at $ 3 billion to $ 4.8 billion, subsequently revised their calculations, estimating total annual losses in the range of $ 1.8 billion to $ 3.4 billion. These forecasts attracted significant attention from both private and governmental sectors due to the potentially severe negative implications for export revenues, which could, in turn, affect the fiscal stability of the national budget [2].

To mitigate the potential damage from the introduction of the Carbon Border Adjustment Mechanism (CBAM), both governmental and corporate levels in Russia have accelerated processes of ecological and climate transformation. The government has been developing a strategy to achieve national carbon neutrality, including legal frameworks and infrastructure. As a result, several key documents have been prepared to advance the climate agenda, even amidst ongoing sanctions and a complex geopolitical landscape. In November 2021, the Russian government approved the "Strategy for the Socio-Economic Development of the Russian Federation with Low Greenhouse Gas Emissions until 2050[5]", setting the goal of achieving carbon neutrality by 2060.[6] In the private sector, carbon-intensive companies have increasingly prioritized sustainability initiatives: some have committed to achieving carbon neutrality by a specific year, while others have set quantitative medium-term goals for reducing greenhouse gas emissions [3].

In 2022, amid new challenges and sanctions, the climate agenda briefly lost prominence in Russia. However, in August 2023, during the G20 Summit, President Vladimir Putin reaf-

[1] According to the United Nations Global SDG Database, Russia in 2021 was in fifth place in terms of carbon intensity of GDP.

[2] URL: https://rosstat.gov.ru/storage/mediabank/26_23–02–2022.html

[3] EU ETS (Emission Trading System) — it is a market-based instrument for reducing greenhouse gas emissions, operating on a cap-and-trade basis. The government sets an upper threshold (cap principle) on total emissions from one or more sectors of the economy. Companies in selected sectors must have a permit for each unit of their emissions. Such permits are obtained free of charge or purchased from the state and companies participating in the system (principle of trade).

[4] URL: https://commission.europa.eu/document/daef3e5c-a456–4fbb-a067–8f1cbe8d9c78_en

[5] URL: https://www.consultant.ru/document/cons_doc_LAW_399657/

[6] URL: https://www.economy.gov.ru/material/file/9e904ab98684f07e6efca5f83ba2cfd2/uglerodnoe_regulirovanie_v_rossii.pdf

firmed Russia's commitment to achieving carbon neutrality by 2060. Subsequently, on October 26, 2023, the "Climate Doctrine of the Russian Federation"[7] was officially adopted.

Although the initial momentum for advancing Russia's climate agenda stemmed from concerns about reduced competitiveness and profitability of exports to the EU, maintaining a focus on higher environmental standards remains highly relevant as trade flows shift eastward. This shift is supported by key government institutions, including the Russian government, the Ministry of Economic Development, VEB.RF, and the Central Bank of Russia. These entities are fostering the necessary infrastructure (such as green and adaptive projects, a carbon credit registry, the Sakhalin project, and a green certificate exchange) and drafting regulations to account for climate risks in their activities [4].

While the immediate risks from CBAM for Russia have diminished, indirect impacts — via intermediaries and partners — are expected to persist. Developed nations and most multinational corporations continue to strive for higher environmental and climate standards, influencing developing countries and the Russian economy [5, 6]. These efforts include enhancing carbon regulation in Eastern markets or imposing additional carbon-related costs along global supply chains.[8]

DEVELOPMENT OF THE GLOBAL CLIMATE AGENDA

The climate agenda of the 2020s has been primarily oriented toward incentivizing economic actors to reduce greenhouse gas emissions into the atmosphere. The depletion of the ozone layer and the increase in average global temperatures are closely correlated with carbon emissions [7]. Analyzing the trends in average annual global temperatures alongside CO2 emissions reveals a parallel trajectory, underscoring the link between these phenomena. Reducing carbon emissions to mitigate global warming is widely acknowledged as a logical and effective strategy for addressing the risks of global environmental crises [8].

In light of the critical significance of this issue, the international community has actively engaged in discussions regarding measures to encourage reductions in greenhouse gas emissions. These measures encompass the advancement of green technologies, the adoption of alternative energy sources, and the establishment of regulatory frameworks to facilitate environmental transformations within industries. However, the principles underpinning the capitalist economic model, which prioritize cost minimization in production, have constrained the pace of transformative processes, particularly in developing countries where corporate structures remain in the stages of active expansion. For private sector entities, the reduction of carbon emissions is inherently tied to the development and application of innovative technologies, which often entail substantial additional costs. As a result, the willingness of companies to engage in such initiatives is contingent upon the balance of associated costs and benefits. This dynamic underscores the critical role of governmental intervention in providing financial incentives to support environmental transformations. The speed at which the current business model is restructured depends on the strength of the financial incentives to achieve carbon neutrality.

The necessity of external economic incentives for developing countries has catalyzed the emergence of new approaches to carbon regulation. Developed nations have shifted their focus toward establishing external benchmarks for foreign companies. Notably, the introduction of cross-border regulatory mechanisms has been proposed, which would impose elevated

[7] URL: https://www.garant.ru/products/ipo/prime/doc/407782529/

[8] The EU market is very large and interconnected with global trade. If Russian exports decrease, the share of other countries will grow, and the impact of the EU's CBAM on them will intensify. As a result, these countries may start developing their own carbon regulation. Thus, if countries exporting to the EU maintain trade relations with Russia, the European CBAM will indirectly impact the Russian economy.

tax rates on trading partners whose production processes exhibit high levels of carbon emissions. Over the medium to long term, such measures are expected to foster the transformation of export-oriented corporate structures.

The European Union's approach seeks to extend climate incentives to countries with less stringent CO_2 regulations to safeguard domestic industries and mitigate the phenomenon of "carbon leakage",[9] wherein production shifts to jurisdictions with lower environmental standards. This initiative is central to achieving carbon neutrality, with cross-border carbon regulation (CBAM) functioning as a mechanism to ensure the comparability of carbon intensity between imported goods and European products. The introduction of CBAM has drawn criticism from representatives of developing and emerging economies, where carbon-intensive production predominates. These stakeholders have characterized the measure as discriminatory and a form of "green protectionism". Nevertheless, the European Union has proceeded with its implementation of external benchmarks. In December 2019, the European Commission adopted the "European Green Deal",[10] a comprehensive legislative framework aimed at achieving carbon neutrality within the EU by 2050. By 2021, this framework was augmented with key climate initiatives, including the "European Climate Law",[11] the "Fit for 55 Package"[12] (targeting a 55% reduction in greenhouse gas emissions), and the CBAM scheme.[13] In response to these measures, numerous countries have initiated the development of national carbon trading systems and implemented green regulatory frameworks to address domestic sustainability objectives.

As of October 1, 2023, CBAM entered its transitional phase, requiring importers of six key goods — cement, iron and steel, aluminum, fertilizers, electricity, and hydrogen — to submit quarterly reports detailing the carbon footprint of their products. Beginning in 2026, importers in the European Union will face financial obligations, including the purchase of emission certificates to account for the carbon emissions associated with the production of imported goods. The commencement of CBAM's transitional phase has sparked renewed criticism from producer nations. In response, some exporting countries have already introduced national carbon trading systems and enhanced regulations governing sustainable development to align with global climate standards.

The implementation of cross-border carbon adjustment mechanisms has become a focal point of international discourse, with debates centering on its feasibility, legitimacy, and efficacy. Advocates of CBAM argue that it addresses transitional climate risks by fostering incentives for the adoption of advanced environmentally sustainable technologies, thereby expediting progress toward achieving carbon neutrality [9]. Moreover, the imposition of additional customs costs under CBAM is posited to stimulate industrial modernization, foster innovative advancements, and accelerate the integration of alternative energy sources, such as nuclear and hydrogen energy, ultimately alleviating the financial burden imposed by carbon regulations on producers [10].

Conversely, critics assert that CBAM infringes upon extraterritorial regulatory principles, characterizing it as a protectionist measure designed to shield the European Union's internal market from lower-cost, carbon-intensive imported goods. Opponents further contend that CBAM may undermine the principles of the most-favored-nation (MFN) trade doctrine, as develop-

[9] "Carbon leakage" is a phenomenon caused by the introduction of a carbon price, characterized by the relocation of businesses to countries with less stringent carbon regulations or the replacement of domestic goods with imports whose production is associated with higher specific greenhouse gas emissions.

[10] URL: https://www.consilium.europa.eu/en/policies/green-deal/

[11] URL: https://climate.ec.europa.eu/eu-action/european-climate-law_en

[12] URL: https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55/

[13] URL: https://commission.europa.eu/document/daef3e5c-a456–4fbb-a067–8f1cbe8d9c78_en.

ing nations often lack the requisite resources to meaningfully reduce greenhouse gas emissions. This disparity exacerbates economic disadvantages by increasing carbon-adjusted costs and rendering international trade less viable for these nations. It is also significant that CBAM is being implemented against the backdrop of the unresolved finalization of a key article within the Paris Agreement that pertains to carbon credit trading. Persistent disagreements among negotiating states include challenges related to double-counting greenhouse gas emissions, such as overlaps between national carbon accounting frameworks and cross-border systems as well as the regulatory ambiguities surrounding the transfer or trading of surplus carbon credits.

Representatives of the BASIC group — Brazil, South Africa, India, and China — issued a statement during the 2022 UN Climate Change Conference (COP27) calling for the avoidance of "unilateral measures and discriminatory practices, such as border carbon taxes", citing their potential to distort market economy mechanisms and exacerbate the "trust deficit among countries".[14] At the 2023 UN Climate Change Conference (COP28), BASIC leaders explicitly protested against "unilateral border carbon taxes".[15] They argued that CBAM (Carbon Border Adjustment Mechanism) would unfairly impose financial burdens on developing nations, despite the fact that developed countries are historically the largest contributors to cumulative atmospheric emissions. Given the issue of historical responsibility for CO_2 emissions, an effective carbon regulation mechanism would, first, allocate proportional accountability to both producers and consumers of carbon-intensive goods [11]. Second, it should ensure that financial resources remain within the countries hosting carbon-intensive industries to fund their "green" transformation. Currently, carbon regulation is implemented unilaterally and primarily targets the supply side. However, addressing demand-side dynamics is more critical to fulfilling the principles of the Paris Agreement and advancing the modernization of carbon-intensive industries [12] [13]. Therefore, bilateral mechanisms must be adopted to redistribute part of the ecological and climate regulation burden to end beneficiaries and consumers of carbon-intensive products. Such an approach would help establish a more equitable system of shared responsibility while fostering sustainable transformation in both production and consumption sectors.

POTENTIAL IMPACT OF CBAM ON DIFFERENT COUNTRIES

Asia, as the world's manufacturing hub for developed countries, faces the greatest risks from the Carbon Border Adjustment Mechanism. At the same time, according to data from the independent research company Enerdata, over the past 30 years, CO2 emissions have increased most rapidly in Asia, which is logically explained by the region's intensive production growth.[16]

To mitigate the negative effects of cross-border carbon regulation, countries in the Asia-Pacific region are striving to introduce national climate regulation, taking into account European practices and standards *(see the Figure)*. The European CBAM mechanism allows non-EU producers to deduct the amount of tax payable under CBAM if they have their own domestic carbon tax. Therefore, implementing national carbon pricing can help avoid or reduce CBAM payments, thereby keeping revenues within their own countries.

Thus, the state prevents capital outflow related to payments made by national companies under the CBAM when exporting to EU countries and takes appropriate measures to

[14] URL: https://www.dffe.gov.za/index.php/BASIC–Ministerial-joint-statement-at-the-UNFCCC%E 2%80%99s-Sharm-el-Sheikh-Climate-Change-Conference-%28COP27/CMP17/CMA4%29

[15] URL: https://unfccc.int/sites/default/files/resource/COP28_BASIC-Agenda%20proposal.pdf.

[16] URL: https://energystats.enerdata.net/co2/emissions-co2-data-from-fuel-combustion.html

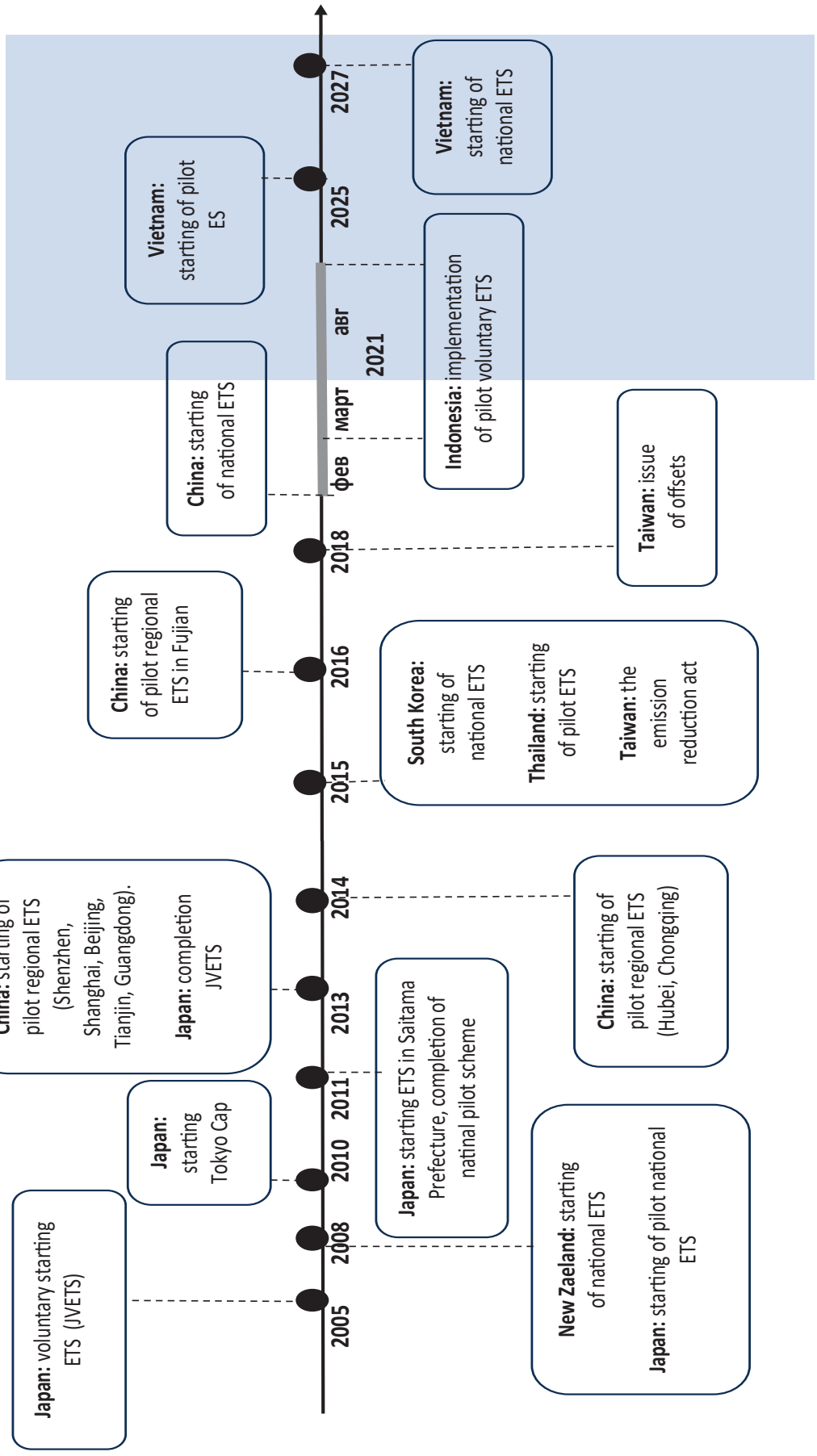

Figure. **Chronology of the launch of greenhouse gas emissions trading systems (GTs) in the Asia-Pacific region**

Source: URL: https://www.economy.gov.ru/material/file/d8d7071b90d7af3818ec3a836355244f/ETS_ATP.pdf

Table 1

Carbon trading systems in Asia-Pacific countries

Parameter / Country	China	South Korea	Japan
Carbon Emission Trading System Status (Implemented / Under Development / Planned)	Implemented	Implemented	Implemented
Year of Launch	2021	2015	2010, 2011
Regulated Sectors			
Current Coverage	Electricity generation	Energy, industry, construction, transportation, waste management, public sector,	Construction, industry
Planned Coverage	Steel, non-ferrous metals, cement	-	-
Emissions Coverage (CO_2)	26 mln tons CO_2-equivalent	589,3 mln tons (2021), 589 mln tons CO_2- equivalent (2022 r.)	12,1 mln tons CO_2 (2019) — Tokyo system; 7,3 mln tons CO_2 (2019) — Saitama system
Current Carbon Price (USD per ton CO2- equivalent)	8,5 USD (2022)	23,06 USD (2021)	5 USD (2019)

Source: compiled by the author.

Table 2

Carbon tax system in Asia and the Pacific

Parameter / Country	South Korea	Japan	Indonesia	Malaysia
Year of introduction of the CO_2emissions tax	2026	2012	2022	2025
List of industries/ products	Energy, steel and petrochemical industries	Oil, petroleum products, natural gas and coal	Energy, transport, agriculture, forestry and peatlands, industry, waste management that emits carbon	Coal and gas power plants

Source: compiled by the author.

fulfill the conditions of the Paris Agreement,[17] to which the majority of countries in the world have adhered.

Analyzing the carbon emission regulation systems implemented in Asia-Pacific countries, two main groups of measures can be conditionally identified: those involving carbon emission quotas and those imposing taxes on excess emissions. The CBAM falls under the second group, but both are actively being developed and implemented in the Asia-Pacific region. *Tables 1* and *2* provide a summary of the CO_2 emission control systems that are either already in use or in the final stages of readiness for implementation.

The implementation of carbon trading systems is planned in Indonesia for 2024 and in Vietnam for 2025. Taiwan, the Philippines, Thailand, and Pakistan have also announced plans to develop and launch CO_2 emissions quota mechanisms.

[17] URL: https://unfccc.int/files/meetings/paris_nov_2015/application/pdf/paris_agreement_russian_.pdf

As of 2023, the global market for CO_2 emission allowances reached nearly $ 104 billion, with $ 33.28 billion coming from China.[18] In 2024, China announced plans to improve the accuracy of carbon measurement in its products. A new carbon footprint management system will be introduced in 2027, setting standards for approximately 100 key Chinese products with high emission levels, such as coal and natural gas, as well as for export products like steel and aluminum.[19]

As part of national CO_2 emission tax systems in various countries, additional financial burdens are expected to be imposed on companies that exceed established carbon emission limits during production. In the Asia-Pacific region, Taiwan, the Philippines, and Thailand have announced plans to develop and implement CO_2 emission taxes. In 2024, China adopted a law regarding import and export tariffs[20] to protect its trade strategy, defining both the specifics of obtaining tax benefits and permissible countermeasures against countries that hinder foreign trade.

CLIMATE AGENDA IN CHINA

The establishment of a national carbon trading system in China represents a pivotal step in advancing the country's strategy to mitigate climate change and achieve carbon neutrality by 2060. [9]

The transition to carbon neutrality has been designed with a strong alignment to Transnational Carbon Regulation (TUR) and the Paris Agreement, which directs its development towards reducing reliance on fossil fuels (a major component of Russia's exports to China), implementing aggressive policies to reduce greenhouse gas emissions, and introducing cross-border carbon regulation[21] akin to the European Union's system. Despite China's firm opposition to TUR, the overarching framework for regulating the carbon intensity of imports has been integrated into its customs tariffs and is already operational in its export-import tariff system.[22] Consequently, Russian exports redirected from Europe to China may be subject to this regulatory framework.

The adoption of stricter carbon footprint standards will likely result in increased production costs for Chinese companies. To mitigate these effects and support domestic producers, the government has developed and announced the introduction of a "green" tariff system for imported goods. These measures will impose additional financial burdens on Russian exporters, thereby diminishing the profitability of their products and undermining their competitiveness within the Chinese market. Moreover, China's shift towards cleaner technologies and a reduction in reliance on fossil fuels may result in lower demand for oil, gas, and coal, further adversely impacting Russian export volumes.

The implementation of carbon emissions quota systems, cross-border taxation of carbon-intensive industries, and supplementary export-import tariffs targeting insufficient environmental performance in the Asia-Pacific region could have significant implications for the Russian economy. In response to TUR, several countries friendly to Russia are developing national carbon pricing systems, suggesting that, over time, Russian exporters will face rising costs. Thus, the introduction of a domestic carbon pricing system is crucial for securing funds for decarbonization efforts. While the development of a national carbon regulation system may increase the financial risks for Russian companies — particularly with regard to the need to upgrade production processes to comply with higher environmental standards — it also offers a potential impetus

[18] Carbon Pricing Dashboard. URL: https://carbonpricingdashboard.worldbank.org/

[19] URL: https://www.businesstimes.com.sg/international/china-plans-new-carbon-measurement-standards-boost-climate-efforts

[20] URL: https://www.reuters.com/world/china/china-passes-tariff-law-tensions-with-trading-partners-simmer-2024–04–26/

[21] URL: https://www.economy.gov.ru/material/file/d8d7071b90d7af3818ec3a836355244f/ETS_ATP.pdf.

[22] URL: https://www.reuters.com/world/china/china-passes-tariff-law-tensions-with-trading-partners-simmer-2024–04–26/

to reduce carbon intensity at the national level. Furthermore, it could facilitate the accumulation of necessary capital for an accelerated industrial transformation. Ultimately, the successful implementation of a domestic carbon trading system would strengthen Russia's position in international trade relations, enhancing its role in both export and import activities.

CORPORATE CLIMATE AGENDA IN RUSSIA

The reorientation of Russian exports towards the East has altered the implications and risks associated with the European Union's introduction of a cross-border carbon tax. However, global developments in carbon regulation continue unabated. Over the past decade, compliance with contemporary climate standards has become an essential prerequisite for the efficient functioning of international companies engaged in cross-border supply chains. Despite this, the concept of carbon neutrality retains its relevance within Russia, as a growing number of Asia-Pacific countries are implementing national systems for carbon emissions control and evaluating the internal corporate performance of their counterparts based on internationally recognized reporting frameworks such as GRI, SASB, and TCFD.

A 2023 survey conducted by the Bank of Russia, which involved representatives from rating agencies, professional and expert communities, as well as companies seeking ESG ratings,[23] as part of the preparatory stage for the development of the "Recommendations for Improving the Methodology and Practice of ESG Rating Assignments",[24] revealed that the majority of organizations support the integration of sustainable development agendas within their operations, with an increasing number of companies expanding their staff to address this area. According to experts from the B 1 Group, based on their annual research titled "On the Priorities of Russian Companies in Sustainable Development", large Russian companies, in response to current geopolitical developments, are planning to [14]:

- redirect focus towards national objectives and legislation in the field of sustainable development;
- reassess goals and strategies following mergers and restructuring processes that resulted from the withdrawal of foreign companies from the Russian market;
- revise existing sustainable development targets, adjusting timelines for their achievement in accordance with the evolving external environment.

Assessing a company's level of engagement in sustainable development requires the standardization and regulation of non-financial reporting procedures. One of the principal challenges in evaluating climate risks lies in the scarcity of available information, the complexity of making cross-sector comparisons, and the absence of regulations addressing sector-specific accounting standards.[25] Consequently, there has been a global push in recent years to establish unified standards for public sustainability reporting within the corporate sector.

As of 2024, new standards from the International Sustainability Standards Board (ISSB) came into effect, setting guidelines for companies on the disclosure of sustainability-related parameters. These include IFRS S 1 "General Requirements for Disclosures of Sustainability-related Financial Information" and IFRS S 2 "Climate-related Disclosures". Numerous national regulators have announced their intention to mandate reporting based on these standards. Such reporting will need to be published concurrently with financial disclosures for the same reporting period and scope, ensuring comparability of data both over time and across sectors. The ISSB's initiative to enhance the transparency of non-financial information is expected to facilitate the global advancement of the climate agenda. According

[23] URL: https://cbr.ru/Crosscut/LawActs/File/6225

[24] URL: http://www.cbr.ru/press/event/?id=14418

[25] URL: http://www.cbr.ru/press/event/?id=14418

to estimates from B 1, by the end of 2023, 44% of Russian companies' non-financial reporting was in compliance with IFRS S 2 standards [15].

For Russian enterprises, the introduction of new non-financial reporting standards represents a significant impetus for advancing decarbonization efforts and mitigating climate-related risks. It is anticipated that this regulatory development will enhance organizational engagement with sustainable practices, stimulating the implementation of climate-related projects throughout the entire value chain, especially in light of the expected intensification of environmental, social, and corporate standards in both host countries and export markets.

In addition to international initiatives concerning transparency and disclosure, substantial progress is being made at the national level in Russia to improve the accessibility and comparability of non-financial information related to climate standards and sustainable development. In December 2023, the Bank of Russia published the "Recommendations for Financial Organizations on the Accounting of Climate Risks"[26] and the "Recommendations for Public Joint-Stock Companies and Securities Issuers on Developing Sustainable Development and Climate Transition Strategies".[27] According to estimates by B 1, 70% of Russian companies are already incorporating these guidelines into their non-financial reporting processes [15]. Moreover, in November 2023, the Russian Ministry of Economic Development issued methodological recommendations for preparing sustainability reports. This initiative is intended to enhance the transparency and comparability of information, particularly regarding the climate agenda, thereby enabling external stakeholders to more effectively assess a company's exposure to climate-related risks. The ongoing analysis of Russian companies' preparedness for adherence to more stringent cross-border carbon regulation standards is crucial for bolstering both financial resilience and the mitigation of risks impacting organizations and the broader national economy.

On the regulatory front, Russia is continuing to develop and implement climate governance frameworks. Since September 2022, the national carbon unit registry has been operational, and since June 2023, the greenhouse gas emissions registry has been in place. For Russian businesses, key drivers for advancing "greening" efforts and acquiring additional carbon units — reflected in these registries — will likely include economic incentives. For instance, companies may use carbon units to offset portions of their carbon footprint or engage in the sale of these units to other enterprises, facilitating transactions within the carbon unit market. Such mechanisms contribute to fulfilling obligations to reduce greenhouse gas emissions in alignment with the Paris Agreement and support the realization of climate goals outlined at COP 27 and COP 28, signaling the potential introduction of a carbon pricing system in Russia by 2030 [16].

In the long term, participation of Russian companies in the national carbon trading system presents several potential opportunities and advantages, including:

- carbon Unit Transactions within the Domestic Market: companies may engage in the sale of carbon units to other participants within the national market, thereby generating additional revenue to offset the costs associated with mitigating their carbon footprint.
- carbon Trading with BRICS Nations: Russian companies could participate in the trading of carbon units with BRICS countries, thereby aligning with practices similar to the European Union Emissions Trading System (EU ETS).
- advancement of Green Technologies and Projects: the participation in such systems can catalyze the development of green technologies and projects, facilitating the attraction of additional financing for these initiatives (e.g., through adaptation and environmental projects). Furthermore, opportunities for conces-

[26] URL: https://cbr.ru/Crosscut/LawActs/File/6556

[27] URL: https://cbr.ru/Crosscut/LawActs/File/7666

sional financing may emerge as a result of this engagement.

• compliance with the Requirements of Investors and Regulators (National and International): reducing carbon intensity and adhering to the principles of sustainable development characterize a company as resilient, as it demonstrates the ability to implement costly projects aimed at transforming its business model, focuses on the well-being of future generations, and targets long-term growth. Currently, there is a trend of institutional investors reducing investments in carbon-intensive industries and projects. For modern investors and counterparties, a company's commitment to sustainable development principles is a critical factor in making positive investment decisions.

• Improving ESG Ratings (Both Domestic and International): higher positions in ESG ratings can influence future decisions on granting financing (e.g., preferential loans) for projects aimed at reducing the carbon footprint. Additionally, this can signal to retail investors that the company adheres to sustainable development principles.

In the context of Russia, a key challenge in transitioning to cleaner production is the limited access to long-term financing sources. Presently, the development of "green" finance within the Russian market remains in its nascent stages. According to B 1 research, approximately 75% of surveyed respondents are either currently seeking or planning to seek funding for "green" and socially responsible projects [14]. Among these, 24% align with the Russian green taxonomy, while 12% adhere to the EU taxonomy [14]. Additionally, certain companies are considering involvement in projects within the Eurasian Economic Union (EAEU) and Kazakhstan. As of the end of 2023, the volume of "green" financing amounted to 489 billion rubles, reflecting a 27% year-on-year increase [3]. It is anticipated that the market for "green" finance will experience substantial growth, particularly with increased government participation in such projects.

CONCLUSION

This article identifies the prevailing trends in the development of the climate agenda in Russia, which are primarily influenced by the shifting focus of business activity from European to Asian markets, particularly China. It also highlights the potential risks the Russian economy may encounter in the long term due to the extensive development of global climate policies. The introduction of cross-border carbon taxes and quotas by numerous countries underscores the need for the refinement of national regulatory frameworks in Russia. This refinement would facilitate the energy transition for private businesses, sustain internal "carbon pricing" mechanisms, and ensure the achievement of carbon neutrality by 2060. Organizations and enterprises seeking to maintain stable growth over the long term must integrate global trends in carbon regulation into their strategic planning.

However, in light of the current challenging economic environment in Russia, there is an observable reluctance within the private sector to fully embrace the climate agenda. This hesitancy largely stems from the substantial financial investments required for the transformation of business processes, the adoption of ecological technologies, and the reduction of carbon intensity in both products and organizational operations. The diminished likelihood of implementing transitional climate risks, such as the imposition of additional taxes by the EU (through the Carbon Border Adjustment Mechanism), owing to the reorientation of Russian exports towards Eastern markets, has allowed companies to extend the phase of transformation. However, this delay does not negate the necessity of transformation itself. Several friendly nations have already adopted national carbon pricing systems, thereby necessitating the introduction of a similar mechanism in Russia to retain resources for decarbonization within the country. Despite the strong opposition from both Russian and Chinese authorities,

the Carbon Border Adjustment Mechanism became operational on October 1, 2023, marking the commencement of its transitional phase. Therefore, the implementation of protective measures by the Russian government is essential to allocate the financial burden across the entire carbon-intensive goods supply chain in export and import transactions. Presently, carbon regulation is being implemented unilaterally, predominantly on the supply side, yet it is crucial to develop mechanisms that can mitigate some of the financial burdens associated with the environmental and climate transition.

In recent years, the Russian government has undertaken significant methodological work to establish the legislative foundation and infrastructure required for sustainable development. National climate regulation, along with increased requirements for non-financial reporting and corporate climate strategies, represent the principal drivers of the environmental agenda. Despite a reduction in the significance of cross-border carbon regulation for Russian businesses, external economic stimuli continue to underscore the relevance of transforming corporate structures to comply with sustainable development standards.

To facilitate the transition of Russian businesses to a "green" economy, the government is introducing new standards and raising expectations for the disclosure of non-financial information. Additionally, the market for national ESG ratings and the "green" finance infrastructure is evolving. The withdrawal from international ESG infrastructure — such as the revocation of international ratings, a decrease in investment demand for Russian companies and "green" projects, and restrictions on access to green technologies — necessitates an independent push for the advancement of the sustainable development agenda within Russia. While this situation presents challenges, it simultaneously offers opportunities, as the country possesses a sufficient resource base to foster the development of low-carbon industries and renewable energy sources. In the future, this could yield competitive advantages in international trade and facilitate a more seamless transition to alternative energy sources, ultimately contributing to the achievement of carbon neutrality.

REFERENCES

1. Balashov M. M. The impact of carbon regulation mechanisms on the development of industry in the Russian Federation. *Strategicheskie resheniya i risk-menedzhment = Strategic Decisions and Risk Management*. 2020;11(4):354–365. (In Russ.). DOI: 10.17747/2618–947X-915
2. Telegina E., Khalova G. Geoeconomic and geopolitical challenges of energy transition. Implications for world economy. *Mirovaya ekonomika i mezhdunarodnye otnosheniya = World Economy and International Relations*. 2022;66(6):26–34. (In Russ.). DOI: 10.20542/0131–2227–2022–66–6–26–34
3. Zhanakhova E., Klaz A. The future of the sustainable finance market: on the enthusiasm and anticipation of greenium. Analytical review. Moscow: Expert RA; 2024. 13 p. URL: https://rusbonds.ru/rb-docs/analytics/RA_expert_1710317817.pdf (In Russ.).
4. Porfiriev B.N., Shirov A.A., Kolpakov A. Yu., Edinak E.A. Opportunities and risks of the climate policy in Russia. *Voprosy ekonomiki*. 2022;(1):72–89. (In Russ.). DOI: 10.32609/0042–8736–2022–1–72–89
5. Hassan S.U., Basumatary J., Goyari P. Impact of governance and effectiveness of expenditure on CO_2 emission (air pollution): Lessons from four BRIC countries. *Management of Environmental Quality*. 2024. DOI: 10.1108/MEQ-12–2023–0424
6. Hashmi N.I., Alam N., Jahanger A., et al. Can financial globalization and good governance help turning emerging economies carbon neutral? Evidence from members of the BRICS-T. *Environmental Science and Pollution Research*. 2023;30(14):39826–39841. DOI: 10.1007/s11356–022–25060–8

7. Mitrova T., Khokhlov A., Mel'nikov Yu., et al. Global economic threat and the Russian economy: In search of a special path. Skolkovo: Moscow School of Management Skolkovo; 2020. 69 p. URL: https://energy.skolkovo.ru/downloads/documents/SEneC/Research/SKOLKOVO_EneC_Climate_Primer_RU.pdf (In Russ.).
8. Marcott S.A., Shakun J.D., Clark P.U., Mix A.C. A reconstruction of regional and global temperature for the past 11,300 years. *Science*. 2013;339(6124):1198–1201. DOI: 10.1126/science.1228026
9. Makeeva E., Popov K., Teplova O. Patenting for profitability: Green energy innovations and firm performance in BRICS countries. *Frontiers in Environmental Science.* 2024;(12):1332792. DOI: 10.3389/fenvs.2024.1332792
10. Rossetto D. The role of border carbon adjustments and subsidies in incentivising investment: Comparing equivalence in the context of steel recycling and decarbonisation. *Discover Sustainability*. 2024;5(1):132. DOI: 10.1007/s43621–024–00337–9
11. Makarov I., Alataş S. Toward consumption-based GHG emissions accounting: From calculation to policy-making. *Vestnik mezhdunarodnykh organizatsii: obrazovanie, nauka, novaya ekonomika = International Organisations Research Journal.* 2024;19(1):85–105. (In Russ.). DOI: 10.17323/1996–7845–2024–01–04
12. Domingos T., Zafrilla J.E., López L.A. Consistency of technology-adjusted consumption-based accounting. *Nature Climate Change*. 2016;6(8):729–730. DOI: 10.1038/nclimate3059
13. Grubb M., Jordan N.D., Hertwich E., et al. Carbon leakage, consumption, and trade. *Annual Review of Environment and Resources*. 2022;47:753–795. DOI: 10.1146/annurev-environ-120820–053625
14. Savostyanov M., Kuryleva L., Stepanov A., Pozhidaeva E. ESG practices of Russian companies: Stability vs changeability. Results for 2022–2023. Moscow: B 1 — Consult; 2024. 23 p. URL: https://www.b1.ru/local/assets/surveys/b1-esg-trends-survey-2023.pdf (In Russ.).
15. Savostyanov M., Kuryleva L., Stepanov A., Pozhidaeva E. Assessment of compliance of the reporting of Russian companies with the requirements of IFRS S 2. Moscow: B 1 — Consult; 2023. 36 p. URL: https://b1.ru/analytics/b1-overview-of-russian-companies-ifrs-s2-climate-related-reporting/?ysclid=lsec54a1r733942638 (In Russ.).
16. Korytsev M.A., Morozov S.A. Greenhouse gas emissions trading scheme: Analysis of international experience and adoption prospects in Russia. *Gosudarstvennoe i munitsipal'noe upravlenie. Uchenye zapiski = State and Municipal Management. Scholar Notes*. 2023;(1);89–96. (In Russ.). DOI: 10.22394/2079–1690–2023–1–1–89–96

ABOUT THE AUTHOR

Tatiana V. Zavyalova — Senior Vice President for ESG, Sberbank, Moscow, Russia
http://orcid.org/0009-0004-3638-0372
tvzavyalova@sber.ru

Conflicts of Interest Statement: The author has no conflicts of interest to declare.

The article was received on 02.07.2024; revised on 20.07.2024 and accepted for publication on 10.08.2024. The author read and approved the final version of the manuscript.