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KAS-MDPD, the German Development Institute (DIE) and the Finish Institute of International Affairs have launched a new publication series on the external dimension of the EU's Green Deal, with inputs by experts from the biggest (re-)emerging powers.

How is the Green Deal perceived by (re-)emerging powers across the world? And what does the Green Deal mean for the EU's global power ambitions? The publication series involves perspectives from eight countries/regions: Brazil, China, the EU, India, Indonesia, Mexico, Russia and South Africa.

Introduction

The way in which EU-Russia relations develop in the context of the green transition will largely determine the prospects for deep decarbonization globally. Russia is the world's largest exporter of fossil fuels and a major supplier of both hydrocarbons and carbon-intensive goods to the EU. On the one hand, European countries cannot simply substitute these imports with primary and intermediate goods from other countries. On the other hand, Russia has little motivation to reduce GHG emissions without additional incentives from the EU.

This paper shows that, given the strong interdependence between the EU and Russia in terms of flows of carbon-intensive goods, a European Green Deal realized in the EU without Russia's involvement 1) would lead to a significant reduction in production-based emissions in the EU, but with little reduction in European consumption-based emissions and consequently global emissions; 2) would lead to the concentration of huge financial resources in a small fraction of global emissions without taking into account the global picture, which is essential in terms of climate change mitigation; and 3) is likely to worsen the confrontation between the EU and Russia.

Russia's perspective on greening

Russia's share of global GHG emissions is less than 5% (Climate Watch 2018). However, the scale and structure of the Russian economy makes it an important actor in the international climate change regime. Russia's ratification of the Kyoto Protocol ensured sufficient international support for the agreement to enter into force in 2005. (1) Since 1990, Russia has achieved the largest absolute reduction in GHG emissions among all countries (Climate Watch 2018): its emissions dropped by almost half, primarily due to the deep post-Soviet crisis and further sectoral restructuring of the economy. (2) At the same time, Russia has one of the most climate-unfriendly export specializations in the world. It is the world's largest exporter of fossil fuels and one of the main suppliers of energy-intensive industrial goods.

With such an economic position, it is hardly surprising that Russia has never demonstrated sufficient climate ambition. The recent Presidential Decree sets the target for reducing emissions, including land use, land-use change, and forestry (LULUCF), at 70% of the 1990 level (President of the Russian Federation 2020). This target would still allow emissions to increase compared to the current level. The long-term low-carbon strategy published in March 2020 projected that by 2050 Russian emissions would be higher than today in all scenarios (Ministry of Economic Development 2020). Neither the European Green Deal nor the declarations on future carbon neutrality from leading Asian countries such as Japan, Korea (both stated they will become carbon-neutral by 2050) and China (by 2060) have changed the very conservative position of Russia on emission reduction plans.

Due to its heavy dependence on the export of fossil fuels, Russia looks at GHG emission reduction from the perspective of risks to its national economy rather than from the perspective of climate change mitigation. Climate policy in this country has always been and continues to be determined by exogenous factors, primarily coming from abroad. Contrary to the other leading economies where a domestic climate agenda creates the background for international commitments, in Russia it is international developments that drive national climate policy (Makarov 2016). The European Green Deal may be one of these developments.

⁽¹⁾ After the United States withdrew from the treaty in 2001, Russia's ratification was necessary for the Kyoto Protocol to enter into force because the treaty stipulated that not only a majority of countries should approve it, but that the signatory nations should constitute 55 per cent of the world's emissions. See 'Russia Ratifies Kyoto Protocol', Deutsche Welle, 23 October 2004. [link]

⁽²⁾ GHG emissions with LULUCF dropped from 3.1 billion tons of CO2e (CO2 equivalent) in 1990 to 1.4 billion tons of CO2e in 1998, and later increased to 1.6 billion tons of CO2e by the late 2010s. [link]

The European Green Deal as a challenge for Russia

Given that Russia is the world's largest exporter of fossil fuels and one of the major producers of various carbon-intensive goods, it is not surprising that deep decarbonization in Europe has significant negative effects on Russian exports.

Makarov et al. (2020) estimate this effect for fossil fuels. According to their estimates, if the EU fulfils its nationally determined contribution (NDC) to the Paris Agreement (-40% GHG emissions by 2030 compared to 1990), it will lead to a 55% decrease in Russian coal exports and a 6% decrease in Russian gas exports to Europe compared to a business-as-usual scenario (Figure 1A). The target of a 55% GHG emission reduction for 2030, which has now been discussed in the EU, would lead to even larger reductions in Russian exports of fossil fuels. The objective of limiting the global temperature increase to less than 2 degrees above the preindustrial level, as stated in the Paris Agreement, requires zero net emissions by the middle of the 21st century and corresponds with the target of the European Green Deal. It implies that Russian exports of fossil fuels to the EU would be close to zero by 2050 (Figure 1B).

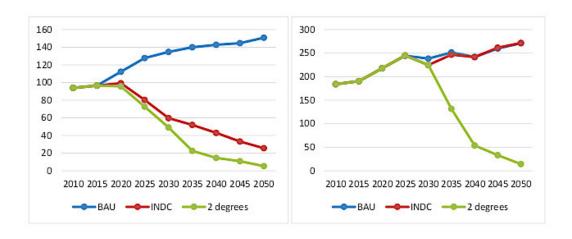


Figure 1. Russian exports of fossil fuels to Europe in different scenarios: 1A) coal, million tons; 1B) natural gas, billion cubic metres (BAU = Russian exports with business-as-usual scenario; INDC = exports based on the EU's Intended Nationally Determined Contribution to the Paris Agreement; 2 degrees = exports based on goal of limiting global temperature increase to 2°C) - Source: Makarov et al. (2020)

While most of the risks for Russian fossil fuel exports concern the period beyond 2030, one element of the European Green Deal may hit Russian exports even in the short term: the Carbon Border Adjustment Mechanism (CBAM), which is planned to be implemented in the EU by 2022. The exact design of this measure has not yet been determined, and consultations have been held both within the European institutions and with trade partners, including with Russia. BCG (2020) estimates potential losses from 3 to 4.8 billion (bn) dollars per year, KPMG – from 4 to 8 bn euro per year (Lukin 2020), and the Institute of Economic Forecasting of RAS – 3.6 bn euro per year (Shirov 2021). All of these estimates are probably slightly exaggerated, as they underestimate the adjusting capacity of the Russian economy and include the losses for the oil and gas sector, which is unlikely to be covered by the CBAM. The exact losses will depend on the concrete parameters of the CBAM, including sectoral coverage and principles of border carbon pricing (Marcu et al. 2020).

However, the EU's debate on the introduction of this measure has provoked a wide discussion in Russia, with participation by both business and the government. Former prime minister and now deputy head of the Security Council Dmitry Medvedev called a special meeting devoted to this issue, where he defined the CBAM as shadowed protectionism and declared that "it would have a significant impact on the Russian economy: our basic industries such as iron and steel, non-ferrous metallurgy, chemical industry, the energy sector may suffer. Due to such transnational regulation there may be a significant decrease in consumption of Russian oil and coal" (Medvedev 2020).

Some representatives of business and political elites (including the President's advisor on climate, Ruslan Edelgeriyev (Edelgeriyev 2020)) insist that the best way for Russia to respond to the CBAM would be the introduction of domestic carbon pricing, which would make any payments to the EU unnecessary, while all carbon fees would remain in the country. Another important part of Russia's business and political communities is represented by the Russian Union of Industrialists and Entrepreneurs (RUIE), a lobby group promoting the interests of big business. It believes that domestic carbon pricing would lead to even larger losses for the national economy. RUIE also maintains that the CBAM is a protectionist measure that contradicts both the Paris Agreement and especially the World Trade Organization (WTO) (Davydova 2020). Consequently, Russia should appeal to the WTO dispute settlement mechanism against its implementation. Taking into account Dmitry Medvedev's statement, the latter point of view now seems dominant among policymakers.

The European Green Deal as an opportunity for Russia

Most of the Russian business and political elites consider the European Green Deal and especially the CBAM as a threat and a cause of confrontation with the EU, one of the many after the Ukraine crisis of 2014. However, in the long term the European Green Deal may open up some opportunities for cooperation, which of course would require political will from both Russia and the EU. This cooperation is crucial for climate change mitigation. Achieving carbon neutrality in EU economies, which account for only 10% of global emissions, would have limited positive effects unless Russia - which provides the EU with carbon-intensive raw materials and intermediate goods - also decarbonizes. Russia's emissions are not purely a domestic affair and its own responsibility - about a third of them are generated for the production of goods for exports (Makarov and Sokolova 2017), mostly to the EU. In the future, with the EU moving towards carbon neutrality, this share would increase even further. To a large extent, Russia's current export specialization and focus on fossil fuels and carbon-intensive goods are not just its own choice, but also a reflection of the high consumption of these goods in the West. This is illustrated by the last column in Table 1, showing a clear fault line between developed countries, the major consumers and net importers of carbon-intensive goods, and BRICS countries, which are producers and net exporters. This fault line may even expand in the future: the movement of the EU towards carbon neutrality (in terms of production-based emissions) would create incentives to further substitute its energy-intensive products with imports that would further increase emissions in BRICS countries, including Russia.

Country	Production-based emissions		Consumption-based emissions		Net exports of emissions	
	Mt	% of world	Mt	% of world	Mt	% of national emissions
OECD, total	12 602	34.6%	13 865	38.1%	-1 264	-10.0%
Canada	587	1.6%	588	1.6%	-2	-0.3%
France	332	0.9%	442	1.2%	-110	-33.3%
Germany	755	2.1%	862	2.4%	-106	-14.1%
Italy	348	1.0%	466	1.3%	-118	-33.8%
Japan	1 136	3.1%	1 312	3.6%	-177	-15.6%
Spain	270	0.7%	288	0.8%	-18	-6.6%
Sweden	42	0.1%	71	0.2%	-29	-69.5%
United Kingdom	380	1.0%	540	1.5%	-160	-42.1%
United States	5 425	14.9%	5 767	15.8%	-343	-6.3%
BRICS, total	15 178	41.7%	13 554	37.2%	1 624	10.7%
Brazil	467	1.3%	489	1.3%	-22	-4.8%
China	9 957	27.3%	8 960	24.6%	997	10.0%
India	2 591	7.1%	2 355	6.5%	237	9.1%
Russia	1 691	4.6%	1 415	3.9%	277	16.4%
South Africa	472	1.3%	335	0.9%	137	29.0%

Table 1. Production- and consumption-based emissions in OECD and BRICS countries in 2018. Source: Calculated by the author based on Friedlingstein et al. (2020) (Mt CO2e = million tons of CO2 equivalent).

Considering Russian emissions as part of a global problem, rather than just its own responsibility, will help in seeing Russia as part of a solution as well. Russia's relatively high energy and carbon intensity, its initial low level of development of renewables and the huge energy losses as a result of outdated infrastructure make it a country with significant potential for low-cost emission reduction. Conversely, the closer the EU gets to carbon neutrality, the more expensive it may become to reduce its residual emissions.

If it is cheaper to reduce emissions in Russia than in the EU, then this means that Russia could benefit from participating in joint market mechanisms. This potentially gives Russia opportunities to attract European finance in low-carbon projects through joint carbon markets. Much work needs to be done in this area, however. Carbon market infrastructure is only at the initial stage of development in Russia, and it is up to the government to support and expand it. However, if national carbon pricing appears in Russia in the coming decade, the country will benefit significantly from linking it with the EU Emission Trading System (ETS). The EU would also derive substantial benefits from involving Russia in joint decarbonization efforts.

These efforts may take different forms. The renewable energy sector is developing gradually in Russia. Its creation is driven by technological policy: the Russian government is trying to avoid a technological gap vis-à-vis other countries and is aiming to create an export-oriented renewable industrial sector which gains governmental support under the condition of localization of production (Henderson and Mitrova 2020). European technologies may play a key role in the development of this sector. European companies like Enel, Fortum, Siemens, Vestas and Lagerwey are active in the Russian market.

Another major opportunity for cooperation is hydrogen. Russia has enormous potential for its low-carbon production using nuclear and hydropower as primary energy sources. Blue hydrogen produced from methane may also be a relatively green option given the relatively low carbon footprint of its generation industry. Further development of wind and solar energy in Russia would expand opportunities for hydrogen production based on them. The important advantage of Russia as a potential supplier of hydrogen to Europe is a pipeline network that could possibly shift, at least partly, from gas to hydrogen (Henderson and Mitrova 2020). Joint pilot projects in hydrogen production on Russian territory might become the first step in the long-term green Russia-European cooperation.

Conclusion

Taking into consideration the current crisis in EU-Russia relations, building cooperation between Russia and the EU in the area of the energy transition is not an easy task. Apart from the willingness for dialogue, it requires a change of mindsets. On the one hand, Russia should start considering green transition not just as a threat but also as an opportunity. On the other hand, the EU should start considering Russia not as an opportunistic force and a spoiler of climate change mitigation efforts but first of all as a necessary part of the solution. This change of mindsets will open a window of opportunity in many areas: joint low-carbon projects, a common carbon market, the development of renewables in Russia with European technologies, and deliveries of low-carbon hydrogen from Russia to the EU.

In 1970, geopolitical tensions did not prevent the Soviet Union and Germany from striking the "Deal of the Century" – "gas for pipes". The result was the creation of the comprehensive pipeline system linking Russia and Europe to each other for more than 50 years. Climate change today requires an EU-Russia Green Deal based on another type of interconnection – through the flows of green finance, goods and technologies. Building and maintaining such an interconnection will be an ambitious but worthwhile task for both Russia and the EU in the years to come.

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