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Russia’s green future suspended

Putin’s decision to attack Ukraine has not just thrown Russia into an economic crisis, but reversed the little gains it made towards decarbonisation

Russia dragged Ukraine into a brutal aggressive war – and the ‘West’ responded swiftly. The consequences for Russia and the world are not yet entirely foreseeable. But it is almost certain that the war slowly depletes Russia’s economy, which has already been stagnating in the past. The economic and financial sanctions are isolating Russia from important parts of the global economy. As a result, the Federal State Statistic Service (Rosstat) estimates that Russia, in 2022, will lose about 12 per cent of its gross domestic product (GDP), while the current inflation rate stands at almost 20 per cent with core consumer price skyrockets.

Most current analyses draw attention towards implications of the sanctions on Russia and their effects on the course of the war in Ukraine. However, it is necessary to recall that Russia is one of the leading global carbon emitters and remains a fossil fuel empire, known for its rigorous, non-reformist political and economic culture. The war is an infinite human tragedy. At the same time, the military actions are not only causing environmental damage on the Ukrainian ground, affecting soil, water, and completely destroying ecosystems. They also have negative long-term consequences for a green transition of the Russian economy.

Russia’s fossil fuel dependence

In the past three years, the Kremlin tentatively opened up to the issue of climate protection. The Russian government ratified the Paris-Climate-Agreement in 2019 and Russia seeks to become carbon-neutral by 2060. Put under pressure by the export-oriented business community, civil society, international climate agreements, and projects such as the European Green Deal, President Vladimir Putin supported programmes to increase efficiency and reduce emissions. But these initiatives are now wastepaper. Apart from an urgently needed reduction of Russia’s contribution to climate change, these measures would also have been important to make the Russian economy less dependent on the dominant 'fossil complex'. Diversification and modernisation would have been necessary to transform the economy, which is structurally stuck in the 20th century.

> ***The fossil fuel-based post-Soviet state capitalism has so far blocked the overdue modernisation and diversification of the economy.***

As one of the world's largest exporters of oil, gas, and coal, Russia's business model is based on the extraction and the exports of fossil fuels. Although Russia – until now – contributes only 3 per cent of global GDP and accounts for 2 per cent of the world's population, the country produces 10 per cent and consumes 5 per cent of the world's fossil energy resources. The fossil fuel-based post-Soviet state capitalism has so far blocked an overdue modernisation and diversification of its economy. In contrast to the energy transition speeding up in the EU, Russian state-owned companies have only recently started to act. Players like the Bank of Russia, Sberbank, Rosneft, and the state development corporation Vnesheconombank started to invest in the low carbon pilot region Sakhalin Island. The nuclear energy giant Rosatom entered the wind energy market in 2018. Unfortunately, these optimistic and promising developments in Russia's climate agenda vanished since the beginning of the war.

According to the International Energy Agency, in 2019, Russian electricity generation was composed of 46 per cent natural gas, 19 per cent nuclear, 16 per cent coal, 18 per cent hydropower, and only about one per cent wind and solar power. In the building and heat sector, it was 65 per cent natural gas, 21 per cent coal, and 14 per cent other sources. With the war and a foreseeable economic decline, it is unlikely that the composition of electricity and energy production will change within the next decades. This is accompanied by the enormous damage to ecosystems and human health.

Russia's 'reverse industrialisation'

The various sanctions by Western powers already have a strong impact on the overall economic growth of Russia, especially due to the lack of fresh investments and technological imports. Most sensitive to the current lack of foreign technology and investments are sectors requiring regular modernisation of their operative systems such as energy, automotive, and IT. Two out of three Russian wind power market players – Finnish Fortum and Italian Enel – have stopped their new investment projects since the outbreak of the war, with Enel intending to leave the country within a few months. Danish Vestas, which has been producing wind blades in Russia for Fortum projects, also intends to withdraw.

Accessible oil reservoirs, such as in the area around Khanty-Mansiysk, are also almost exhausted. Without special drilling technologies provided by the foreign oil companies, recently drilled oil wells could become of no use. Russia's last hope is China, which in the last four years increased its technological support such as the Chinese Nanhai drilling rigs that were active in the Arctic waters of Murmansk. However, due to the war, these operations were also stopped. In contrast to the energy market, the Russian market for technologies is too small for China to get particularly involved there.

Russian leading state economists are calling for 'обратная индустриализация', a 'reverse industrialisation' referring to an increased focus on the development of less advanced technologies, a circular economy, and import substitution.

All in all, it is a grim scenario for the future of the Russian economy as a whole, and in particular when it comes to the green transition, technical innovations, measures for climate change adaptation, and carbon-capture technologies. The required modernisation of the energy infrastructure, as well as the import and installations of electrolysers for hydrogen production, the development of e-mobility, or the installation of heat pumps, are put on hold. But it is not only capital that is lacking. Apart from a lack of skilled workers, very soon, there will be shortages in high-tech devices, innovative applications, and scientific know-how, as well as in basic products, from automobile parts to household appliances. Already now, there are reports of shortages of relevant components for aerospace and automobile industry, paper, and dental supplies.

As a countermeasure to combat the current crisis, the Russian populist leadership calls for 'обратная индустриализация', a 'reverse industrialisation' referring to an increased focus on development of less advanced technologies, a circular economy, and import substitution. The Soviet-time car manufacturer Avtovaz (Lada), for example, is expected to have a comeback with its rather low-tech cars. Furthermore, Russia is dependent on imports of seeds, pesticides, veterinary medicine, and incubated eggs.

Since the sanctions in the aftermath of the Crimea invasion in 2014, steps have been taken to reduce these dependencies, such as the creation of national seed banks and the promotion of domestic pesticide production. In order to develop these sectors, investment in education and innovation is required, which will be very difficult without shared knowledge and experience with the international community. The global isolation will lead to more modern technologies becoming inaccessible and being replaced by less efficient ones, leading to production inefficiency, decline in the product quality, and increased prices.

A green future is unlikely

Russia will not achieve its required green transition through targeted reforms, *by design*so to speak, for the next years and probably decades to come. Environmental and climate policies will hardly have a place in the domestic politics of post-war Russia. Previous successes in reducing air and water pollution will be undone. However, the economic decline and the reduced exports of oil and gas due to the lack of technological know-how and falling demand will reduce Russia's GHGs footprint in the long run, leading to the reduction of the climate impact *by disaster*.

As long as Putin is not toppled, it is unlikely that the few domestic political forces that have supported modernisation and diversification will play a role after the war.

As long as Putin is in power, it is unlikely that the few domestic political forces that have supported societal modernisation and economic diversification so far will play a role after the war. Likewise, civil society will not have the strength to advocate such reforms, as it is already under strong pressure. The somewhat politically influential middle class will be busy coping with the everyday life. Environmental protests will be very difficult to voice due to the harsh political oppression.

The case of Russia shows that an ecological transition can hardly be achieved without economic growth, political transformation, and international cooperation. In the deep recession that is now occurring, politics and the economy lack their ability to bring about change.

At some point, to some degree cooperation between Russia and Western countries will become necessary. Unfortunately, it is likely that Putin will try to negotiate sanctions ease in return for GHG reductions at the next international climate conference. Thus, Russia will hold its high CO2 and methane emissions hostage. This is not a good basis for multilateral climate negotiations. One of the few avenues for possible cooperation after the end of the war could be Putins perception of climate change as a security risk. This perception could be the basis for cooperation in combating global warming. However, it will take a long time for Russia to give climate policy an appropriate status both domestically and in its foreign policy.

Lukas Daubner
Berlin

Dr Lukas Daubner is Head of Programme for Green Modernity at the Berlin-based think tank Center for Liberal Modernity.

Aysel Aliyeva
Berlin

Aysel Aliyeva is Programme Manager at the Berlin-based political think tank Center for Liberal Modernity.

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