

# U W E C

Ukraine War Environmental Consequences Work Group

**Issue #11** 2023 UWEC work group

#### Dear Friends!

A year has passed since we began living in the midst of Russia's full-scale invasion of Ukraine. Over that time, our work group has published over 60 articles about the war's environmental consequences. We have covered issues both indirectly and directly impacted by the invasion. Unfortunately, the war is not over; it continues, as does our work. On the invasion's anniversary, our team took stock, shared their words and worries, and witnessed the difficult events of the last year.

• Year of Ukraine's full-scale invasion

18 March 2023 is a day that is not foremost in the global community's mind. It was on this day that Russia's annexation (occupation) of Crimea was completed in 2014. Over the years of the peninsula's occupation, along with its rich and diverse ecosystems and vitally important biodiversity, the whole region has essentially been turned into a military base. It has been used as a bridgehead for the invasion since 24 February 2022. Our expert Oleksii Vasyliuk discusses how the annexation has impacted Crimea's natural protected areas.

• <u>Nine years after Crimea's annexation: militarization's environmental</u> <u>consequences</u>

As we have reported regularly, the invasion has not only impacted protected areas and environmental initiatives in Ukraine, but also significantly worsened the situation in Russia itself. Russia's branch of World Wide Fund for Nature was declared a "foreign agent". UWEC expert Eugene Simonov reflects on the implications of this event and why the policy of creating foreign agents is very dangerous for Russia and the entire world.

• <u>"Under the guise of defending nature... they tried to influence government</u> <u>decision-making</u>"

Russia's invasion of Ukraine has prompted a series of crises. One of the most significant is in the energy sector. On the one hand, the war has a notable effect on the energy sector's use of coal. On the other, Europe stands by its ambitious plans to transition to renewable energy sources. Journalist Anna Volynets provides a brief overview of the year's energyrelated outcomes and how they connect to climate and environment policies.

• How did Russia's invasion of Ukraine change the electricity market in Europe?

The energy crisis also directly impacts the environment. It was expected that sanctions on Russia's coal industry would decrease extraction and improve environmental situation in regions including the Kuzbass. This did not happen – the situation in Kuzbass did not *improve although coal extraction faced additional challenges, and grassroots environmental activists faced even greater pressures. Activist and expert Anton Lementuev examines life in Russia's largest coal region since February 2022.* 

• Siberian coal through the lens of war



We continue to track the war's environmental consequences on our <u>website</u> and on our social media (<u>Twitter</u> and <u>Facebook</u>). Join the conversation!

Wishing you strength and peace! Aleksei Ovchinnikov Editor, UWEC Work Group



## The year of Ukraine's full-scale invasion

Today marks one year since Russia's full-scale invasion of Ukraine began. Throughout this time, our working group has been analyzing both the direct and indirect environmental impacts of the war on By UWEC Work Group Translated by Jennifer Castner

the environment, on conservation practices, and on environmental activism. To observe this date, we share personal perspectives about the 12-month invasion and the consequences that it has had.

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"The shock that we experienced a year ago was an earthquake, reverberating in waves around the world. Those who faced actual destruction, those whose houses, gardens, and forests were destroyed, certainly experienced great pain. But the manner in which the international community reacted to the invasion of Ukraine clearly demonstrates that people don't live in isolation; they are united in a network, in a "global village" of mutual aid and support. And only this can help us cope with the situation.

What have we been doing this year? We are talking about the environmental consequences of the war and are trying to do it as loudly as possible. Our voice is not the only one, and together our appeals have an effect. For instance, last year Ukrainian international environmental and organizations sharply raised the question of an embargo and other limits on Russian fossil fuels. Autocracies built on the sale of extracted resources shouldn't collect money that they will use to further attack neighboring countries or abuse their own citizens' human rights. At the same time, plans for Ukraine's green recovery are not just being actively discussed, but are actually being developed. Battlefields can become the design basis for urban and infrastructure projects that will continue to evolve in harmony with the natural environment.

We spent this year in anticipation of environmental catastrophes: the attack(s)

on Zaporizhzhia nuclear power station, the water reservoir release, the destruction of cities and big industrial zones, burning forest fires, tanks, and trenches in the Chornobil region. We continue to live under the threat of a catastrophe that will affect not only Ukraine, but the entire European continent. Meanwhile, the destruction and pollution caused by the invasion are still far from being eliminated, compensated for, or reclaimed. The threat of nuclear terror hasn't subsided, and combat and shelling prevent us from assessing the full scale of pollution in river basins and seas. Soon, a new forest fire season will be upon us. Our perception of these catastrophes are no longer as intense; we have acclimated to living in the circumstances of a new tragedy. Easing vigilance with respect to these issues is the most dangerous threat.

In the upcoming year, we will continue to analyze and disseminate information regarding the environmental impacts of the invasion. We hope that the fighting in Ukraine will end, and the international community will find a solution so that the war will cease to be a threat and not just be put on pause, as it was before the invasion. In today's era of climate change, it is important that fear, hatred, and limitless consumption stop being a determining force in the relationship between humans and nature. We must use respect and understanding as the basis of our interactions."

Alexei Ovchinnikov, editor of UWEC Work Group, based in Georgia.

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"Russia's full-scale invasion of Ukraine has had a serious impact on the global climate agenda, and in many ways it has reshaped the entire world's energy market. The fact that the majority of countries were relying on just a few countries' energy supplies, (many of those with autocratic or dictatorial political regimes) has made the question of energy security very relevant, especially in the context of energy production based on local renewable sources. The transition from energy systems built on fossil fuels and led by governments and global corporations to systems based on renewable sources and controlled on the basis of democratic solutions, sometimes on a scale of cities or local communities, is now being discussed in many cities and countries around the world. The further negative impacts of the climate crisis that became more visible during the recent year and growing climate risks and damage are making the world contemplate the decarbonization of the economy and transition to carbonless sources as the main priority of global development. At the same time, decarbonization and moving past the use of fossil fuels is an important step on the way to democratization and global security."

Angelina Davydova, Co-Editor of UWEC Work Group, Berlin-based environment and climate journalist

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"Against the backdrop of the looming climate crisis, sometimes toxic geopolitical power struggles, and the unhappy anniversary of Russia's ongoing and criminal war in Ukraine, it is often a struggle to envision a bright future or find joy in day-to-day work. Our UWEC team's efforts are one place where that remains possible, and I particularly appreciate the shared opportunity to study today's awful environmental consequences through the lens of a brighter future, with a green and sustainable recovery for Ukraine and beyond.

We must leverage solutions to the environmental consequences of the war and the climate crisis to force meaningful action to save our planet and humanity. Granted, that strategy is a microscopically-thin silver lining of the war in Ukraine, but it is one that we must nurture and grow. We can apply these sustainable natural resource use and greening principles widely: in small communities or the smallest habitats for a single ant species all the way up to regional, national, and international governance and business. We must work alongside Indigenous peoples and local communities – humans with many generations of experience stewarding and healing landscapes and resources – to envision and implement a green recovery for Ukraine and the planet."

Jennifer Castner, UWEC WG coeditor, translator, director of <u>The Altai</u> <u>Project</u>, based in Michigan USA

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"Without a doubt, the Russo-Ukrainian war has brought the greatest destruction of Ukraine's nature over the past 100 years. But destruction is a chance for recovery. Ukraine already has experience in the restoration of the Chornobyl Exclusion Zone. In the 30 years since the largest man-made disaster in history, the radiation-contaminated area has become the largest wild forest in Central Europe.

It is clear that some of the territories (mainly fields) where the most sizable hostilities occurred will be so polluted as to be unsuitable for growing food or supporting human life. In addition, the lands in need of mine removal in Ukraine today already exceed an area the size of Belarus.

But nature will be restored in these territories. That will represent a huge contribution to ending carbon emissions from arable land and increasing sequestration through soil restoration. The scale of this forced recovery could be unprecedented on a global scale and bring Ukraine even greater respect from the world community."

Oleksii Vasyliuk, UWEC WG expert, <u>Ukrainian Nature Conservation Group</u> leader and co-founder, based in Kyiv, Ukraine

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"For my whole life, I have been approving of the apolitical nature of my fellow Russian environmental activists – not involving themselves in politics deeper than was necessary for nature conservation and local communities. We joined political protests "only in our free time". By 2004, as the regime tightened its grip and when there was no air left to breathe, we had to choose between the straight political fight or solving global environmental problems. I left for China, working from there to develop transboundary environmental collaboration. Of course, the top brass in that country were no bowl of cherries either, but I didn't have a civic urge to overthrow them. I don't have regrets about my past choices, perhaps because there's simply no time for such introspection now.

By starting the war, the Russian regime left me no choice but resistance. I see how this imperialist war, born out of colonial exploitation of resources and people, is threatening nature in Ukraine and dozens of other countries and also undermines global climate and environmental cooperation. This is happening at the most critical moment of the relationship between humanity and nature. I am happy that I can participate in this resistance as a professional together with a team of like-minded people. Our future depends on human society's ability to put survival and a sustainable green future at the forefront of overcoming today's crisis."

Eugene Simonov, UWEC expert, Australia-based Foreign Agent of the Ministry of Justice in the Russian Federation

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"It would be nice if the war also had positive environmental consequences, ones that indirectly contribute to Ukraine's green recovery and hasten the transition of European countries to renewable energy. I hope that our work will help find the best ways to heal the terrible wounds that the war has inflicted on Ukraine, and that, in turn, the world community will learn some lessons."

Irina Sukhy, Representative of <u>Ecohome</u> (Belarusian environmental NGO in exile) to UWEC, based in Lithuania •



## Nine years after Crimea's annexation: militarization's environmental consequences

In 2014, Russia's occupation and annexation of Crimea led to the peninsula's militarization. Military drills, often more destructive to nature than direct hostilities, were held near or even within protected areas. At the same time, Crimea's unique ecosystem is extremely important for biodiversity conservation both in Ukraine and across the entire northern Black Sea region.

Nine years of information gathering and almost a year of collaborating By Oleksii Vasyliuk Translated by Nick Müller & Jennifer Castner

with expert analysts from the NGO Crimea-SOS went into writing this article. Analysis showed that the change in Crimea's political status and its separation from Ukraine's unified system of state oversight and administration very quickly led to unprecedented environmental consequences.

In this series of articles, we will examine the impacts of Russian annexation on the peninsula's environment. The first article will focus on militarization of Crimea. In subsequent articles, we will consider the problems of increasing environmental pollution, natural resource extraction, biodiversity destruction, and the environmental consequences of Russia's large-scale construction projects in Crimea, such as the Kerch bridge and Tavrida highway.

From a biological point of view, Crimea is a unique region whose flora and fauna have preserved a number of rare and endemic species found only on the peninsula and that are incomparable with the rest of Ukraine. It is not surprising that in this regard, every third nature reserve in Ukraine is found here. The oldest of them, Crimean Nature Reserve, first received special conservation status back in 1919, almost Askania-Nova with simultaneously Reserve, Ukraine's first and one of its most famous reserves. In 2014, after the Russian Federation's illegal annexation of Crimea, the situation radically changed.

For Russia, the annexation pursued goals far from tourism, health recreation, protection of its nature reserves, or even the expansion of its national territory. That country's goals were and remain predominantly militarily focused: to block deployment of Nato's fleet in Crimea (in the event thatUkraine joins Nato), dominance in the northern Black Sea region, and creation of a powerful military and logistics outpost for which they even launched the "project of the century" – construction of the Kerch bridge.

Less important but nevertheless strategic goals included the blockade of Ukraine's Azov Sea ports, seizure of its gas fields (one of which Russian troops even seized just off the coast near Odesa and far from Crimea), and the opportunity to present Crimea's seizure as an incredible illustration of its successful imperial policy. Another goal was co-opting supporters of Russia's expansion with valuable real estate handouts in Crimea.

#### Militarization of the peninsula during occupation

Until 2022, Russian military units based in Crimea since 2014 did not directly participate in hostilities against Ukraine. But at the same time, military exercises at various scales occurred almost continuously on the peninsula.

The situation changed starting on the very first day of the full-scale invasion of Ukraine on February 24, 2022. Military drills ceased, but Crimea became a springboard for Russian troops. Missile strikes were carried out throughout Ukraine from Crimea and attack helicopters and missile-carrying aircrafts used it as their home base as well.

Conducting military drills requires large natural areas with low population density, free of tourists, and without



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developed infrastructure. At the same time, military exercises using weaponry and testing of new weapons have had the same <u>negative impact</u> on the environment as actual hostilities.

The most prominent consequences of both the hostilities and military exercises – damage to the landscape and vegetation, chemical contamination of the soil and groundwater – have a cumulative effect. At the same time, repeated exercises further damage landscapes and vegetation and pollute the soil even more. Areas where military exercises take place often suffer more greatly than combat zones when repeatedly bombarded with polluting ordnance.

As a result, there are damaged landscapes, chemically poisoned

unsuitable for agriculture, areas and a large amount of unexploded ordnance. Between exercises or after their completion, active training grounds remain inaccessible to the local population and tourists for recreational use. It is clear that only large, uninhabited natural areas and those not in active economic use can become military training grounds.

The size of the areas where Russian troops have set up military training grounds is impressive. It is impossible to determine the boundaries of all sites using open data sources alone. Taken together, Opuk and Chauda training grounds have a total area of more than 55,000 hectares. These areas are natural landscapes (plains suitable for grazing, haymaking, and tourism) and



Map 1. Several military training grounds in Crimea were actively used for conducting Russian armed forces training exercises, 2014-2022. Source: Oleksii Vasyliuk.

before becoming military grounds, they provided a large number of ecosystem services. At present, any use of these territories by civilians is impossible.

## Environmental pollution at military training grounds

Without enough information about the quantity and caliber of the ordnance used, we cannot calculate the damages or otherwise express the extent of environmental damages. However, we can describe the nature of this damage and draw conclusions about the condition changes in the territories now being used for military training grounds.

Munitions explosions of any caliber cause a chemical reaction, which, in turn, pollutes the atmosphere (with those reagents that had time to react) and soil (with the reagents that did not have time to react during the explosion). In the case of munitions explosions in the sea, the vast majority of contaminants end up in seawater, regardless of those proportions. Over years of occupation, the total number of ordnance explosions in some parts of the Kerch Peninsula is so large that craters merge into a single area of damaged soil where it is not possible to count individual craters. For example, Russian media <u>sources</u> have reported that over 500 metric tons of ammunition were used in just five days during the Kavkaz-2016 exercises at Opuk training ground.

Despite the lack of reliable details about the volume of ordnance used during military drills in Crimea, official Russian armed forces sources publish evidence of the regular nature of military exercises conducted on the peninsula. Information about them was often published by the Russian media and was accompanied by photo and video <u>materials</u> that clearly illustrate the scale of military activities on the training grounds.

The largest exercise, Kavkaz-2016, <u>began</u> right after the training grounds received official status as part of the Southern Military District of the Russian Federation (the Opuk training ground is



*Fig. 1 Munitions explosions on Kerch Peninsula and in nearby coastal waters, Emerald Network. Source: Ministry of Defense of the Russian Federation YouTube channel.* 



*Fig. 2-3. Outskirts of Opuksky Reserve, home to one of the largest populations of the Schrenk tulip (listed in the Red Book of Ukraine), shown before <u>2016</u> and <u>after military exercises in 2017</u>. <i>Source: Black Sea News and YouTube.* 

assigned to the 810th Marine Brigade of the Russian Navy, and Cape Chauda is assigned to the air defense forces).

The first drills at Cape Chauda (28 May – 4 June 2016) were accompanied by firing air missiles (<u>Aviadarts-2016</u> competitions). Video <u>footage</u> of the

September exercises not only permits identification of locations, but also enables an understanding of the extent of the destruction.

Here are a few still images from the exercises conducted in September 2016 at Opuk training ground.



Fig. 4. Completely destroyed vegetation cover on the Kerch Peninsula in Crimea after Russian military exercises (photo from approximately 2017). Source: Gazeta.ru.

It is obvious that such activity is compatible neither with the safety of the population, nor with nature protection. Moreover, the lands used for military training have actual nature conservation status. With a small margin of error, we can say that at least the <u>Chauda</u>, <u>Opuk</u>, and <u>Bagerovsky</u> sites on the Kerch Peninsula are fully within the Emerald Network of Europe. Also, the Opuk site includes Opuk Nature Reserve, while the Bagerovskiy training ground includes all of Karalar Regional Landscape Park.

Also, a video of the exercises at Opuk training ground shows (<u>starting at</u> <u>13:33</u>) that the entire steppe area (much larger than the reserve itself) burned completely during the exercises. Large areas of steppe have also completely lost their natural vegetation cover as a result of military equipment maneuvers.

The movements of Russian Armed Forces units were also recorded outside military training grounds, including inside Magic Harbor National Park.

It is especially dangerous that targets during Russian Armed Forces drills in Crimea were chosen both within the testing grounds themselves and in the sea, with devastating effects on marine biodiversity.

In addition to the obviously detrimental effect on biodiversity, particularly on planktonic organisms, munitions explosions in sea water lead to chemical contamination. Unlike on land, pollutants freely spread in water



Fig. 5-6. Testing of thermobaric weapons (also known as vacuum bombs) during the Kavkaz-2016 exercises at Opuk training ground. Sources: Gazeta.ru  $\underline{1}$ ,  $\underline{2}$ .

bodies and also accumulate in aquatic organisms, including fish. Apart from ammunition fragments and chemical pollution, explosive and sound waves are also hazards.

Apparently, these drills took place almost continuously. Before the 2022 invasion, Russia may have needed to justify the ongoing presence of a significant contingent of military forces on the Crimean Peninsula.

#### **Consequences of military drills on Crimean nature**

According to our estimates, the Opuk training ground is roughly 55,000 hectares in size. We measured this area by marking the boundaries of land damaged by military activity on satellite images.

Unfortunately, it is almost impossible to calculate the number of craters from explosions because the specifics of the



*Fig.* 9. Northern outskirts of Lake Kachik, near total destruction of vegetation (coordinates: 45.039666, 35.887769). The entire lake bottom is also completely streaked with the tracks of military equipment (2019). Source: Google Maps.

Kerch peninsula's ground cover prevent the formation of true craters visible on satellite images, and in some places there are so many craters that, over areas of dozens and sometimes hundreds of hectares, vegetation is almost completely destroyed.

Lands used for military training grounds are some of the last places where rare species of steppe zone birds were found in Ukraine: Demoiselle crane, Great bustard, Eurasian thickknee, and Collared pratincole. These largely unpopulated areas were in fact the only place in the country where these species could safely nest. In the case of Great bustards, they also form clusters here in the winter months.

It is almost impossible to imagine how these species manage to nest during military exercises (even when they are conducted 5-10 kilometers distant). At the same time, all these species are listed in the Red Book of Ukraine and are protected at the European level by the Berne Convention.

Separately, it is worth mentioning the Little bustard bird species. Once

very numerous on Ukraine's once uninterrupted steppes, this species has almost disappeared as steppe is converted to croplands. Today, 30-50 individuals are found in Ukraine during nesting season (when five to seven females may nest), and in winter the total number reaches approximately 70-80 individuals.

Factors decreasing abundance are the loss of biotopes, destruction of nests during grazing and haymaking, human disturbance, increasing numbers of feral dogs and corvids, removal of clutches and broods, and shooting adult birds. According to the Red Book of Ukraine, the only place in the country where this bird is found is on the Kerch Peninsula. Since the start of military exercises in Crimea, we have not found any evidence confirming the continued presence of this species.

There are other negative consequences of militarization. For example, significant amounts of water are taken from reservoirs and wells, to service new military units and a growing amount of equipment. Local residents have complained repeatedly about water shortages.

#### International legal mechanisms as potential solutions

In 1977, the Protocol Additional to the Geneva Conventions and relating to the Protection of Victims of International Armed Conflicts (Protocol I) was adopted. It was the first document containing universally binding rules for the treatment of the environment during international armed conflict.

Article 35 establishes the basic methods and means of warfare, indicating that the right of the conflicting parties to choose the methods or means of warfare is not unlimited. In particular, it is prohibited to use weapons, projectiles, substances, and methods capable of causing excessive injury or excessive suffering. Paragraph 3 of this article also provides for a ban on the use of methods or means of warfare that are intended to <u>cause</u> long-term and serious damage to the natural environment.

In 1982, the UN General Assembly adopted Resolution 37/7, which approved the <u>World Charter for Nature</u>. In this document, Principle 5 states that "Nature shall be secured against degradation caused by warfare or other hostile activities." Principle 20 states: "Military actions damaging to nature shall be avoided."

In 1992, the UN General Assembly adopted the <u>resolution</u> "Protection of the environment in times of armed conflict". The resolution pointed to the violation of international law in the form of environmental damage and depletion of natural resources not justified by military necessity. Since there can be no possible intention to harm nature during military exercises, we can state that the Russian Federation, by its actions in Crimea, has repeatedly violated the above provisions of international treaties.

In 2016, the UN <u>adopted</u> a document on the need to protect the environment of Crimea from the consequences of militarization. On 27 May 2016, the UN Environment Assembly adopted a UNEP resolution "Protection of the environment in areas affected by armed conflict," which recognizes the role of healthy ecosystems and areas with sustainable management of natural resources in reducing the risk of armed conflict. However, there was no reaction to it – three months later, the first highpowered Kavkaz-2016 training exercises took place in Crimea.

On 17 December 2018, the UN General Assembly adopted a resolution on "The problem of militarization Autonomous of the Republic of Crimea, the city of Sevastopol, Crimea, as well as parts of the Black Sea and the Sea of Azov." It was supported by 66 countries, opposed by 19, and 72 countries abstained. The resolution directly noted that Russia's actions to militarize Crimea pose an environmental threat not only to its environment, but also to all countries of the Black Sea basin, and can "undermine regional security and entail significant negative environmental consequences in the region."

In 2019 and 2020, the General Assembly adopted similar again resolutions, which once again drew attention the environmental to consequences of Russian military exercises in occupied Crimea.

However, as demonstrated in this article, many of the largest maneuvers occurred after the adoption of resolutions by the UN General Assembly.

Militarization of the Crimean peninsula has had an obvious destructive effect on the environment during the nine years since annexation. Military use of Crimea was and remains the primary goal of its annexation by Russia.

We can assume that the consequences of Russia's militarization of the peninsula will have an effect on the environment almost on par with the consequences of military action. Pollution of Crimea and the remains of ordnance at military ranges will temporarily worsen the state of biodiversity. At the same time, these consequences will lead to a decrease in the number of people visiting many areas and, in general, to the long-term loss of Crimea's recreational status. Temporary destruction can become long-term, and it may not be possible for nature to be restored. •

Main image source: <u>YouTube</u>

## "Under the guise of defending nature... they tried to influence government decision-making"

UWEC Work Group expert Eugene Simonov comments on the Russian government's declaration that WWF Russia is a foreign agent.

The Russian Federation Ministry of Justice conducts its very own "Fridays for the Future". Almost every Friday after lunch, they announce new foreign agents. The timing is convenient; victims don't have enough time to mobilize a response in the press. I met my own personal foreign agency on 8 October 2021, while celebrating By Eugene Simonov Translated by Jennifer Castner

someone's birthday in Haifa. By and large, I wasn't even indignant – I just didn't understand why I was the first individual environmentalist foreign agent to be appointed.

But on Friday, 10 March 2023, the Ministry of Justice's latest press release was enraging:

> "Under the guise of activities defending nature and the environment and the biological diversity of species, representatives of the World Wildlife

Fund tried to influence decisions made by Russia's executive and legislative branches and hindered implementation of industrial and infrastructure projects," the Ministry writes. "The Fund distributed negative information about decisions made and policies pursued by public authorities."

Of course, it's ridiculous to remind the Ministry of Justice that the law **"On Foreign Agents"** itself makes a clear exception for those involved in the protection of flora and fauna, directly implying that appeals to government on this matter are not "political activities", even when it comes to infrastructure projects that threaten wildlife. Every day we see that the Russian government can be taken at its word: as they gave, so shall they take it back without even a blink.

Even more amusing is the new euphemism for the word "criticism": "distributed negative information about government decisions and policies" – in any viable society, criticism is acceptable and it is impossible to improve state mechanisms without it.

Regardless of what the State Duma's "mad printer" printed into law, we all understand that, today, nature conservation is the most important part of politics. The ongoing survival of countries and humanity as a whole depend on the quality of environmental policy. So, it was not the Ministry of Justice's wicked statement that aroused my stormy emotions, but rather the exact victim being branded and trampled by the Ministry.

Over the last decade I have seen three dozen of the best environmental NGOs in Russia branded as foreign agents (and subsequently liquidated)... NGOs where my comrades worked and adjusted to the idea that every community group working honestly to protect its nature would sooner or later be branded and devoured by the Leviathan. But there were also major international organizations, ones that, as I recently wrote about regarding militaristic development of Wrangel Island, are still valuable to the authorities as world-class centers of expertise that help improve the clumsy state machine. Their mere existence is a kind of alibi for the authorities, proving their recognition of the value of international environmental relations.

The history of the World Wildlife Fund in Russia begins with the very establishment of the earliest international environmental relations by the Russian Federation. In autumn 1993, in a Moscow office-apartment rented to assess prospects for environmental cooperation with Russia, a future WWF program for the protection of rare species developed in parallel with the preparatory phase of the Global Environment Facility's (GEF) "Protection of Biodiversity in Russia" project, an initiative that played

a key role in the preservation and expansion of the country's protected areas system. Two young coordinators of the GEF project work and argue day and night - I, recently graduated from an environmental conservation master's program in the United States and the legendary Laura Williams - she cofounded WWF in Russia and dedicated the greater part of her life to it. After her tragic death in 2018, WWF-Russia established an award in her name for young environmentalists. So, WWF's response today to the Ministry of Justice sounds somewhat strained: "The supreme governing body of our Fund – the Council – is made of citizens of the Russian Federation. All the Fund's employees are also *Russian citizens…"* But de facto, this is a sad truth - it has become dangerous and awkward for foreign specialists to work in the Russian branch of an international environmental organization. This reduces the possibility of international cooperation and strains mutual understanding between the Russian Panda and its huge international family.

After 2000, WWF made its peace with the regime and argued minimally with the government, but did a great deal to strengthen Russia's environmental potential. So, in response to the announcement of the organization's foreign agent status, they write: *"For the last 28 years, the Fund has implemented over 1,500 field projects. More than 145 federal and regional protected areas totaling*  72 million hectares in size have been created and expanded with the support of the World Wide Fund for Nature." And this is the truth; the Fund's main projects are aimed at patching gaps and improving government mechanisms in Russia's nature protection system. And, of course, the Fund regularly makes recommendations to the government on ways to improve various aspects of environmental policy.

WWF tries to secure much as possible, government support as signing official cooperation agreements with ministries and regional authorities; Rosneft and VTB are among its sponsors. In 2014 Putin congratulated the Fund on its 20th birthday: "Your organization's active civil society role deserves the deepest recognition. It was WWF that first used the Internet to promote a public legislative initiative ... and with your participation, laws were enacted that toughen responsibility for the poaching and trafficking of animals listed in Russia's Red Book." There's a glint of poison in these congratulations; Putin remembers very well how in 2000 the Fund's team threatened to hold an all-Russia referendum on the restoration of an independent environmental agency, which the government had to suppress using fraudulent manipulations of "illegal signatures".

WWF works in 100+ countries, bringing international expertise, the latest environmental technologies, and big international money for their

implementation. From the beginning of the war, various commercial firms and regional governments began to speak out against cooperation with WWF, partly to eliminate the extra "eyes" that track negative ecosystem impacts, and partly to score points in the fight against "foreign evil". The last straw was an article dated 14 February in Komsomolskaya Pravda and signed by Putin adviser S. B. Ivanov and Justice Minister Chuichenko, entitled "Advice to true environmentalists: stay away from Russian WWF." The Minister of Justice serves as Chairman of the Supervisory Board of the Amur Tiger Center, an organization that has become WWF's main competitor in raising and disbursing funds for protection of the Amur Tiger, reaping the glory associated with it. The article frankly (and with little evidence) speaks not about WWF's "subversive activities", but about the fact that it gets in the way of two "autonomous non-profit organizations" established by very big sovereign people for the protection of the Amur tiger and the Far Eastern leopard. Not long after, and "using its official powers", the Ministry of Justice carried out WWF's execution. It's clear

that this step is irreversible, while the organization being destroyed is simply created for "foreign influence" in the best sense of the word.

Toothier colleagues from **Greenpeace** described the Ministry's decision as "absurd", stating "to protect biodiversity, the Fund, like hundreds of other Russian environmental organizations, is forced to enter into 'dialogue' with the government, highlighting bad government decisions and opposing their implementation (which has the potential to harm our nation's ecology), despite being known as "industrial" and "infrastructural".

Be that as it may, in rejecting WWF, the Russian state machine has sunk to yet another low on the path to international self-isolation. Russia's next step could be "freezing" or refusing to participate in international conventions. And, alas, such changes are already visible. Introduced to the State Duma on 13 February, an outrageous bill to weaken protections of Lake Baikal also contains a proposal to remove any mention of World Heritage sites from the law "On Environmental Protection", a move to eliminate this international category of protection from Russian law. •



## How did Russia's invasion of Ukraine change the electricity market in Europe?

By Hanna Valynets Translated by Nick Müller

The war in Ukraine directly and indirectly affects the energy industry of other countries. For example, at the end of November 2022, after intensive bombardment, not only Ukraine but also neighboring Moldova <u>lost</u> electricity. Countries face much longer-term impacts across the global electricity market. There are two main trends: price increases and a transition from fossil fuels toward green energy.

## How did the world's demand for electricity change in 2022?

According to a 2023 International Energy Agency (IEA) <u>report</u>, the Russian invasion of Ukraine sparked a global energy crisis. In 2022, the price of energy (including for natural gas and coal) reached a record high, in turn increasing the cost of electricity production. This facilitated a sharp rise in inflation and provoked an economic downturn. In most parts of the world, the higher electricity prices are, the lower demand falls. The IEA report notes that demand in 2022 grew only 2% in comparison to an average of 2.4% between 2015-2019.

Growth of average wholesale electricity prices was most noticeable in the European Union (EU), where it more than doubled from 2021. High prices decreased energy consumption in the EU by 3.5% in 2022. This drop in consumption is comparable to the 2008-2009 financial crisis and during the Covid-19 pandemic in 2020.

In India and in the United States (US), demand for electricity increased, but by much less than pre-pandemic, rising by 8.4% and 2.6% respectively. In China, growth was at 2.6%, significantly lower than the pre-pandemic average of over 5% (2015-2019).

#### Why did price hikes occur?

According to the IEA, prices for electricity grew as a consequence of higher natural gas and coal prices. Natural gas prices reached record levels and consistently exceeded the equivalent of \$250 US dollars per barrel of oil. The price of coal also reached a record high, climbing to \$457 per metric ton in early September 2022. In mid-year, oil prices rose significantly above \$100 per barrel before falling again. This explains a 90% increase in electricity costs worldwide in 2022, and 50% of this increase caused by gas prices. According to the Zero Carbon Group, the total of import gas expenditures multiplied in the EU, which spent  $\in$ 252 billion in the first three quarters of 2022,  $\in$ 186 billion more than the previous year. This is equivalent to a 286% increase in expenditures. To cope with rising price increases and the energy crisis, European countries spent between  $\in$ 500 and  $\in$ 768 billion to subsidize electricity and protect consumers from the short term effects of high energy prices. Bruegel <u>writes</u> about this in several <u>reports</u>.

> In the regions most affected by the energy crisis, the least affected were countries with a high share of renewable energy sources; prices there for energy were lower <u>according</u> to Zero Carbon Analytics, citing IEA.

## What will happen with prices?

According to experts from European thinktank Bruegel, in early February 2023 gas prices in Europe had fallen from their peak value, but they are still higher than they have been in the last decade. A mild winter helped the EU to soften wholesale electricity prices, but they are still high compared to recent years.

However, the problem is not only in energy prices. Delivery supply problems are expected next winter in Europe, <u>according</u> to IEA. Its experts explain, saying that next winter may not be as warm. In addition, imports of Russian oil ended in February while reconfiguration of Europe's gas supplies will take time.

the At same time, experts at Germany's for Institute Economic Research (DIW Berlin) doubt that Germany will face a shortage of gas next winter. They argue that demand for gas has fallen and that Russian gas was replaced by Norwegian supplies arriving via liquefied natural gas (LNG) terminals in Belgium and the Netherlands last winter. Germany is currently increasing the number of its own terminals.

Balance between supply and demand will remain unsteady in the EU for the next two years according to <u>Bruegel</u> experts. The system has a very small buffer with which to compensate for any potential supply risks. To get through the winter successfully, the EU must continue decreasing its gas consumption in order to fill its reserves to a minimum level of 90%.

#### EU's departure from the Russian gas market: How did this come about?

In 2019, 41% of natural gas imports to the EU arrived from Russia, with 26.9% of total crude oil imports supplied by Russian companies, as were 46.7% of solid fuel imports <u>according</u> to the Climate Action Network, citing Eurostat. Now governments are replacing Russian gas supplies, <u>says</u> Regina Dimitrisina, a political consultant at the Friedrich Ebert Foundation center of competence–Climate and Social Justice.

"The invasion of Ukraine changed the European energy system and seriously influenced the EU's energy security agenda. After 24 February, diversification of gas supplies has become the main priority for most European governments. There has also been a short-term increase in electricity generation from coal," says Dimitrisina.

On 8 March 2022, after the fullscale invasion began, the European Commission (EC) <u>set</u> a goal of reducing Russian gas imports by two-thirds by the end of the year.

This was planned to be accomplished through diversification of gas supplies, accelerating the transition to renewable energy, and substituting renewable sources for the gas used in heating and electricity generation

By November, the EU had replaced almost 75% of Russian gas imports, according to a report by the international research group Zero Carbon Analytics, citing the Council of Europe. At that time, Zero Carbon Analytics noted that the country <u>supplied</u> only 12.9% of gas to the continent. The significant phaseout of Russian supplies was largely made possible using pre-existing infrastructure for transporting gas and a sharp reduction in the demand for gas, according to analysts. On 5 February 2023, an embargo on maritime deliveries of Russian oil products to the EU <u>came into</u> force, and today, deliveries by sea to third countries are possible only at low prices (the EU has <u>set</u> an upper limit). The United States also introduced an embargo on Russian oil in the spring of 2022.

As a result, Russia <u>lost</u> a significant share of its sales in the oil and gas market, including the loss of the European gas market. It was <u>anticipated</u> that Russia would try to redirect flows to Asia, and this has occurred. As a result, China, India, and Turkey have <u>benefited</u> from market redistribution after the ban on Russian gas, coal and oil products, writes the Insider. Turkey is also attempting to replace Russia in the European gas market, partially by buying Russian oil and gas (as well as fossil fuels from the Middle East, Azerbaijan, and Kazakhstan), by increasing transit routes and working to create a gas hub for subsequent export to Europe.

#### Changes in global demand for fossil fuels

The IEA <u>predicted</u> in 2022 global fossil fuel demand could soon plateau and stop growing in the long term.

At the same time, global production of coal and gas will generally stay at the same level, as growth in demand in the Middle East and Asia-Pacific regions will be offset by declines in Europe and America, <u>writes</u> Zero Carbon Analytics, citing the IEA.

EU demand for gas in the first nine months of 2022 <u>decreased</u> by over 10% as compared to the same period in 2021. EU gas demand is <u>expected</u> to fall by 43% by 2030 if the EU meets its longterm climate change commitments, and by no less than 19% even without further policy changes.



Source: EMBER, IEA<sup>36</sup>

In the global market, demand for gas is projected to peak by the end of the decade, going only on the basis of current countries' policies. If countries meet their long-term climate goals, demand for gas <u>will fall</u> by 10%.

It is also expected that growth in demand for natural gas in developing economies in Asia in 2021-2025 will be 50% lower compared to the previous year's forecast, and that sustained high prices "may further undermine demand growth prospects for gas and LNG in developing Asian countries," the IEA <u>reports</u>.

#### How the EU and EECCA countries are shedding their dependence on Russian energy

To reduce dependence on fossil fuels and increase resilience to price shocks, in May 2022 the European Commission developed and published the <u>REPowerEU</u> plan to accelerate the adoption of clean energy.

In December, the Council of Europe and the European Parliament <u>reached</u> a preliminary agreement on REPowerEU. This means that EU member states will receive grants and loans for the implementation of new measures that they must <u>incorporate</u> into their national recovery and resiliency plans.

According to the European Commission, an additional €210 billion of public and private sector investments are <u>needed</u> to phase out supply of fossil fuels from Russia by 2027. The phaseout will be funded by the Recovery and Resilience Fund (RRF).

The EU plan's challenges include insufficient political support, additional required documentation (bureaucratic red tape) for the construction of renewable energy infrastructure (REI), managing network overload and when connecting REI. Additionally, implementation of REPowerEU leads to a weakening of environmental legislation. Specifically, it will result in rejection of some procedures for assessing the impact of renewable energy on the environment.

Achieving energy independence from Russia is a difficult task not only for Europe, but also for EECCA countries (Eastern Europe, Caucasus, Central Asia), <u>writes</u> Climate Action Network. There are several strategies for recovering from this dependence.

The first strategy is diversification of energy sources and expanded use of decentralized renewable energy sources such as solar, wind, and geothermal, along with investments in energy storage technologies.

The second is to improve energy efficiency. Some countries in the EECCA region lose an average of 70% of heat produced in winter months, according to a joint study published by the Institute for New Energy Systems in Germany and the Institute for Energy and Sustainable Development in the United Kingdom.

60-80% of buildings in Central Asia are earthen structures built mostly from soil, clay, or adobe without proper building codes. The age of dwellings, combined with vernacular architecture, is a key reason for high energy use for heating Central Asia's residential sector. "The lack of modern heat supply services, low income levels of the population, and high heat demand in energy-inefficient residential buildings in rural areas contribute to the use of solid fuels for home heating," the researchers write.

### How is green energy developing?

Russia's invasion of Ukraine has created serious challenges for the transition to a green economy in EECCA countries, <u>writes</u> Climate Action Network. The war has forced countries to prioritize energy security issues ahead of climate issues.

Despite this, Ukraine, in decentralized renewable energy sources are sometimes the solution to both problems simultaneously. For example, in Kyrgyzstan Climate Action EECCA member Network Unison Group is working on legislation for a green transition with the government's support.

The drop in Russian gas purchases from the EU "does not mean greater climate neutrality in the short term. The reason is the short-term use of coal and increased LNG imports. Such gas imports began to be used as an alternative import option in connection with the Russian invasion of Ukraine," <u>says</u> Regina Dimitrisina from Ebert Foundation.

However, wind and solar generated a record 22% of electricity supplies in the EU in 2022, surpassing fossil gas (20%)



#### Fig. 3: Heat pump sales growth, selected EU countries 2021-2022

Source: PORT PC - Polish Organization for the Development of Heat Pump Technology<sup>35</sup>

for the first time, leaving coal far behind (16%) as well, <u>writes</u> Zero Carbon Analytics, citing the think tank Ember. Coal production in the EU decreased by 6% in the last four months of 2022 compared to the same period in 2021.

According to Ember's analysis, fossil fuel production in Europe may drop by 20% in 2023.

Heat pump adoption in Europe increased dramatically in 2022, with sales up 120% in Poland, 100% in Slovakia and Belgium, and 50% or more in Finland, Czech Republic, and Germany, <u>writes</u> Zero Carbon Analytics. There is also an interesting recent trend to increase the production of renewable energy: Europe is <u>considering</u> possible sites in Africa.

Over the long term, one important direction for overcoming the energy crisis and dependence on Russian energy carriers is to accelerate the development of renewable energy sources.

EU wind and solar production rose by 13% in the months following Russia's invasion of Ukraine, think tank Ember said in October 2022. This record growth in renewable generation has saved the equivalent of €11 billion that would have otherwise been spent on gas imports.

Solar generation also replaced \$34 billion in fossil fuel expenditures alone in the first six months of 2022 in seven Asian countries – China, India, Japan, South Korea, the Philippines, and Thailand, <u>writes</u> Zero Carbon Analytics, citing the IEA. This is equivalent to 9% of total fossil fuel expenditures in these countries over the same period. In the future, it is predicted that 88% of the increase in electricity production before 2025 will come from renewable energy sources, with a mere 1% from fossil fuels. In the next five years, it is also planned to add as much renewable energy around the world as in the last 20, <u>writes</u> Zero Carbon Analytics, citing the IEA.

## Nuclear energy misses a second wind

How did nuclear energy fare in the context of the war? The Ukrainian postwar reconstruction plan mentions the construction of <u>nine</u> new power units (the same number <u>operated</u> in Ukrainiancontrolled territory in December).

But while Ukraine plans postwar actions, Rosatom is already signing agreements and working with governments in Central Asian countries to resolve issues related to construction of nuclear power plants. Construction announced in <u>Uzbekistan</u>, was as were cooperation agreements with Kazakhstan and Kyrgyzstan. None of these countries currently have nuclear power plants, Climate Action Network explains.

*"When Rosatom builds new nuclear reactors in a developing country, it cements a century or more of dependence on Russia,"* explains Vladimir Slivyak, co-chair

of the Russian environmental group <u>Ecodefense</u>.

In stark contrast, nuclear power <u>collapsed</u> in the EU despite a degree of <u>support</u> for it in energy security terms, for example, extending the life of already operational nuclear power plants. One of those countries is Germany, it was decided to extend the life of two of the three remaining nuclear reactors through the first half of 2023. Belgium is another example where the service life of two reactors was extended by another decade.

Between 2006-2020, nuclear power generation in the EU, <u>writes</u> the European Commission, decreased by 25%. <u>According</u> to Eurostat data, by 2020 the EU produced 24% of all electricity from nuclear power plants located in 13 countries.

However, both the European Commission and the United Nations Intergovernmental Panel on Climate Change (IPCC) continue to believe that nuclear power will help countries meet their climate commitments. Environmental organizations counter that the problem of storing nuclear waste has not been resolved.

With the start of the war, opponents of nuclear power gained a new argument. Nuclear power facilities are at high risk of emergency situations during active hostilities and can become objects for blackmail or, conversely, strengthen



Nuclear reactors in Europe. Source: <u>Al Jazeera</u>.

the geopolitical power of individual parties.

#### Long-term trends

In 2022, the war and related events significantly affected the electricity market in the EU and around the world. In particular, demand for electricity grew more slowly, and, in some places even dropped. The reason was the ultra-high energy prices caused by the impact of war and sanctions, as well as the shortage of energy carriers and the desire to abandon fossil fuels. Redistribution of fossil fuel supplies may result in more uncertainty over the next two years for the balance of energy supply and demand in the EU. The EU seeks to stabilize matters by reducing gas consumption and topping off its storage facilities.

This war is changing fossil fuel demand around the world. In the near term, the IEA has forecasted, for the first time ever, that demand may stop growing and plateau. The nuclear power sector has seen some gains, but in general its market in the EU has <u>collapsed</u>. Together, these trends combine in parallel with green energy's strengthened position. •

Main image source: WorldWide



## Siberian coal through the lens of war

In 2022, the European Union's fifth sanctions package banned the purchase of coal from Russia. Experts widely believed that the resulting logistical and financial difficulties facing Russian coal miners would seriously impact the industry. However, this did not happen, and protest activity in Russia's main coal-mining region, Kuzbass – responsible for 60% of all production in Russia and half of its national exports – did not falter.

Given the <u>secrecy</u> of imports/exports and sectoral statistics, it is difficult to make accurate forecasts about the coal By Anton Lementuev Translated by Nick Müller

regions. In the absence of human rights protection and information support, increased pressure on dissenters can halt protests and further harm living conditions despite discontent among the population.

#### February: First sanctions and forecasts for the coal industry

On 24 February 2022, the full-scale invasion of the Russian army into Ukraine began. To many experts it seemed, at first, that the days of the coal industry in Kuzbass, Russia's main coal-mining

region, were numbered: Russia does not produce the necessary components maintain mining equipment, to nor do they produce heavy mining International equipment. sanctions could end access to bank financing, and coal commodity markets could close. Without maintenance, mining combines could remain underground and coal conveyors could remain at the surface, with excavators and drilling rigs frozen at the bottom of large and small open pits. Many thousands of service companies serving coal miners could also be left without payment or spare parts. Tens of thousands of people may be left without livelihoods in company coaltowns in Kuzbass, including Kiselevsk, Prokopyevsk, Kaltan, and Belovo.

By the end of 2022, economists carefully and at length <u>claimed</u> that the coal industry had come to an end. In contrast, from that spring to today, Kuzbass industry officials have been optimistic again and again, despite the fact that in summer 2022 coal industry Minister Oleg Tokarev spoke about the critical situation surrounding coal exports. Even in pre-war times, it was typical for Kuzbass to simultaneously sound the alarm and discuss the coal region's future - as was the case in January 2022, <u>2020</u>, <u>2013</u>, and earlier. The reason for optimism is based on the idea that both Europe and Asia would still need coal, and Russian coal companies would find a way out of this situation if they could expand throughput capacities on the Baikal-Amur Mainline and Trans-Siberian Railway(s).

#### Spring: Subsequent sanctions and complications

In March, it became publicly known that equipment manufacturers, suppliers of engines (Cummings, Caterpillar) and spare parts began to leave the Russian market. Shipping operator Maersk left, affecting well-established supply chains of everything necessary to ensure smooth operation of the mining and service industries. In October, Russian Railways officially admitted there was a <u>shortage</u> of imported bearings.

Thanks to a mid-March 2022 decision by the Russian government, coal miners <u>lost</u> one of the most important tools they had for maintaining export volumes: the rule of non-discriminatory access (NDA) to coal transportation by rail. NDA gave a higher priority to the export of coal from Kuzbass, Khakassia, Buryatia, and Tuva, and without this priority, Russian Railways could reject coal for more profitable cargo (oil, oil products, metal, containers). Instead, a temporary rule was created, causing tremendous controversy and confusion, and its use was <u>extended</u> until summer 2023.

In April, news of the upcoming coal embargo broke: EU countries would stop buying coal from Russia as early as August 2022. Japan announced

Russian Coal Exports (selected countries, <u>million</u> metric tons)									
Year	Total product ion (million tons)	Total export (million tons)	Domestic consumptio n in Russia (million tons)	EU	China	Japan	South Korea	India	<u>Ukra</u> ine
2022 *	443	210.9	172.42	30	59	n/a	26.5	16.7	n/a
2021	438	223	166.6	50.4	53	21.6	24.2	2.35	14.6
*Data for 2022 was presented by the Deputy Prime Minister of the Russian Federation Alexander Novak on									

February 13, 2023, and differs from previously published data in the media, so its accuracy is not possible to confirm after the Russian government blocked access to such data.

<u>Table 1.</u> Data on Russian coal exports to selected countries, 2021-22. Source: Deputy Prime Minister Alexander Novak.

an embargo at the same time. China, India, and South Korea did not impose bans, and although the latter promised to abandon Russian coal, it actually increased its purchases of coal as shown in Table 1.

### European energy sector ambiguity

Before its embargo coal, on Union consumed the European а significant share of Russian and, in particular, Kuzbass exports. In 2021 alone, the European Union purchased approximately 30 million tons of Kuzbass coal. The European coal market has been considered a premium market for Russia with a short haul (distance) and low competition. For comparison,

in October 2022, the cost of thermal coal in northwestern Europe was \$300 per metric ton, and in China - \$130. And, despite <u>unprecedented</u> discounts on Russian coal from the moment the embargo was announced to its implementation, coal exporters, having sold 30 million tons to the European Union, <u>earned</u> four times more money than a year earlier for the same volumes and during the same period. Thus, not only did Russian coal miners get rich on pre-sanctions hype, but so did European energy companies that profited from increased tariffs, as well as the entire supply chain.

In addition, in December it <u>became</u> <u>known</u> that European insurers of ships transporting coal to countries in the Asia-Pacific region had reaped large profits after the embargo (since autumn 2022) on the export of Russian coal. It has not yet been possible to verify the accuracy of the information, but it would be worthwhile: Bloomberg <u>published</u> such information at least once, citing dubious anonymous sources.

The fact that the sanctions were eased can be indirectly <u>proven</u> by the growth of coal exports to China and South Korea, including through remote ports in European Russia – Ust-Luga, Vysotsk, Murmansk, and Taman due to the low cost of freight, which also depends on the behavior of those insurers mentioned in the Bloomberg article. If these facts are confirmed, then this is a fairly important point to investigate in terms of the sanctions' effectiveness and methods for their circumvention.

#### Did Kuzbass survive?

The main coal-producing region of Russia (60% of all production and half of exports), Kuzbass experiences the sanctions slightly more negatively than the industry as a whole. In 2021, Kuzbass produced 243 million tons, in 2022 – 223.6 million tons. Today, there is neither a massive delay in distribution of wages in the industry (on the contrary, we can talk about growth in numerical terms), nor is the labor market very competitive. In 2022, the number of vacancies in Kuzbass coal companies <u>increased by 43%</u>. Executives and entrepreneurs close to Kuzbass coal companies expressed disappointment in forecasts by economic experts whom they had previously listened to and adjusted their plans accordingly.

The problem associated with the departure of Caterpillar and Cummings has been somewhat resolved. This is presumably due to the existence of parallel imports, new production of a number of spare parts within Russia, and making equipment substitutions. Entrepreneurs working in the coal service sector had previously found ways to solve very complex logistical and financial problems. They are accustomed to playing by ever-evolving rules in the face of tax pressure, corruption, kickbacks, and the low level of justice found in "electoral sultanates" (subjects of the Russian Federation that always vote overwhelmingly for the ruling party), including Kuzbass.

At the same time, the population outflow from Kuzbass <u>continues</u>. The region is a loss leader for this indicator in Russia. Life expectancy is <u>decreasing</u>: according to statistics from Kemerovostat, Rosstat, and annual state reports on the health and epidemiological well-being of the population, residents of Kuzbass fall sick more often and die at a younger age than the average Russian.

A recent study <u>showed</u> that risks for congenital malformations in babies are also disproportionately high in Kuzbass cities where coal mining is the most intensive. Among the cities studied, residents of Kizelevsk, where coal is the only industrial activity, face the greatest risks of birth defects. The risks in Kiselevsk turned out to be even higher than in Novokuznetsk, where three metallurgical plants operate.

## Optimism with consequences

In the last years before the start of the war, the <u>first talks</u> began in the region about the need to diversify the Kuzbass economy and the importance of moving away from an economic model based solely on the coal industry. Prospects for growth in coal exports to Asian-Pacific countries and the friendly optimism of Russian officials on this issue seem to destroy hopes for its economic diversification.

Against a backdrop of war, sanctions, and increasing dependence on coal exports, anthropogenic pressure on nature will grow in the region, as will the number of violations of the rights of citizens to live in a healthy environment, as guaranteed by Article 42 of the Constitution of the Russian Federation. Environmentalists propose that if Kuzbass officials want to stem the flow of out-migration and increase life expectancy in the region, they must use the current (sanctions) situation to quickly abandon coal dependence.

Togetherwithinternationalcolleagues,Ecodefense,aRussian

environmental group, has been trying to persuade the West and energy companies for years that continuing to buy irresponsibly-mined Russian coal is immoral in terms of the both value of the human life and the severe environmental and climatic consequences for the entire planet.

Uncontrolled methane emissions open-pit coal from mines and degassing mine installations, countless endogenous fires within tailings dumps, (growing each year in Kuzbass alone by about three billion tons) all increase climate risks. The way out of this situation could have been a dialogue between the Russian government, coal companies, scientific community, and the economic bloc, followed by the development of a fair program for transitioning to alternative economic activities to eliminate coal mining's negative consequences.

With one hand, in launching the "special military operation" on 24 February 2022, President Putin tragically solved the problem of the EU's immoral coal imports for hundreds of thousands of people, while the other hand eliminated the hope of a just transformation of the Kuzbass economy, a process that is unthinkable without Western technologies, experience, and investment. It is unlikely that residents of the Kuzbass will see the return of clean rivers, white snow, and longer life in the foreseeable future.

2023 will show whether the Russian coal industry will continue to develop or stagnate; in January production in Kuzbass had already decreased by 7.9%

## Protests in Kuzbass: What has changed?

Increases in coal mining in Kuzbass are inextricably linked with the growth of protest activity among local residents. The most prominent and earliest case was a protest by residents of the towns of Alekseevka, Ananyino, and the village of Apanas in Novokuznetsk region in 2010-2013 against a coal mine that had begun to operate nearby.

In 2017, Novokuznetsk hosted the first mass rally in Kuzbass history against coal mines. In June 2020, a tent camp sprang up to protest plans of Kuznetsky Yuzhny Mine LLC to build a coal loading station. This was an extremely dirty coal mining infrastructure facility near the village of Cheremza (near Myski). In the summer and late autumn of 2022, residents of the town of Apanas and the villages of Alekseevka and Ananyino blocked attempts to recommence mining operations at the open pit, where mining had last occurred in 2013. These are just a few examples of a huge number of various protests against the actions of coal companies operating in the region.

All types of protest activity are completely banned in Kuzbass, including solo pickets since the beginning of the pandemic. Despite this, protests still happened, as, for example, in Cheremza in 2020, where people were subsequently fined. In addition, sometimes "punitive" searches took place in their homes. 2022 was no exception; searches in Alekseevka were <u>conducted</u> that fall.

Over the past 10 years, not a single human rights organization has had an ongoing program in Kuzbass beyond a few individual cases. The only highprofile and successful court campaign known to the author opposed plans by StroyPozhService LLC to build a coal mine near Mencherep in Belovsky District. This case was litigated by lawyers from Team 29, a now liquidated human rights organization from St. Petersburg, with the support of Ecodefense In 2018-2019. At the time, a local court ruled in favor of several hundred local residents, and the planned seizure of land from them in favor of coal miners for "state needs" was challenged. However, in the overwhelming majority of such cases, activists were always forced to find legal protection on their own.

In 2022, the number of environmentally hazardous projects did not decrease. For example, a year earlier, <u>plans</u> for the construction of the Krapivinsky hydropower plant (HPP) on the Tom River were updated and continued to be implemented in 2022. The HPP's reservoir would inundate high conservation value natural areas and collect industrial and municipal wastewater from the south of the region. A decision about the HPP's construction was issued by the Ministry of Economic Development and the region's leadership as a means of <u>reducing</u> dependence on coal. However, at the same time, local authorities spoke about plans to establish new coal enterprises or expand existing ones near Alekseevka, Talzhino, Gavrilovka and others.

Despite the wartime situation, there were incidents of one sort or another that indicated community concerns about the behavior of local authorities or specific companies in Kuzbass. In a remarkable incident in January 2023, residents near Cheremza <u>recorded</u> a video message in German to <u>protesters</u> opposing energy company RWE's plans to mine coal in Lützerath – a far-away community in the Siberian hinterland expressing solidarity with German climate activists.

Experience has shown that, both before the start of the war and after, non-violent forms of direct action are the most effective way to protect the rights of citizens to a healthy Kuzbass. environment in Local residents learned to come together and support one another in the face of pressure and repression, regardless of whether they were in different cities or even regions. This happened during a protest camp in Cheremza in 2020, a court campaign in Mencherep in 2018-2019, a series of protests in Kiselevsk in 2019, and also during a confrontation with coal miners in neighboring Khakassia in 2018-2022.

Forthemostpart, citizenshave learned to work effectively with the media and to organize, when possible, a defense team in court and during interrogations, despite not having external funding sources. In January 2023, for example, local activists successfully persuaded a judge to invalidate the results of the environmental impact assessment report for the Krapivinsky HPP project, while earlier (February 2022) the police blocked entry for the project's opponents at the hearings. In another case in late autumn 2022, residents of Apanas, Alekseevka, and Ananyino kept watch around the clock despite freezing temperatures on key roads, blocking attempts to mine coal at Apanasovsky Mine.

#### Consequences of a year of war for the coal industry in Russia and the Kuzbass

In 2022, China and India were the main drivers of coal exports from Russia. This was especially noticeable during a ban on coal imports to China from Australia. However, no one can guarantee that the Chinese government won't switch to buying mainly Australian coal again tomorrow, to the detriment of Russian coal supplies.

Environmental protests and activist campaigns have continued in the region. Unfortunately, however, they receive much less media attention than previously now that independent media are largely blocked inside the Russian Federation, with many editorial offices and journalists forced to leave the country. In addition, critical independent media focus most of their resources on covering the war and neglect current events outside of the capital. Unfortunately, today Kuzbass activists are completely unable to obtain legal support from human rights organizations.

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Main image source: <u>Ecodefense</u>



U W E C

Ukraine War Environmental Consequences Work Group