

U W

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**Ukraine War
Environmental
Consequences
Work Group**

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Dear Friends!

In nature, dark days are followed by brighter days by design. Winter holidays and the new year fall at this time of transition from long nights to sunnier days – always a time to see hope for the future, hope for change, restoration, renewal. UWEC Work Group wishes you a Merry Christmas and a Happy New Year. We wish you and your loved ones peace, mental strength, and health.

The past year of full-scale war in Ukraine was marked by many environmental disasters and difficult events. The explosion of the Kakhovka hydroelectric power station, protracted hostilities in the east of Ukraine, fires in Askania-Nova Nature Reserve. Despite these challenges, conversations about Ukraine's restoration have been gathering energy, as many begin to anticipate ways for Ukraine to develop after the war. We take a look back at some of UWEC Work Group's top stories in 2023:

- [2023: Year in review](#)

*As always at this time of year, the world gathers to participate in the UN conference on climate change. This year **COP28** took place in Dubai, where there was less talk about the war in Ukraine. Nevertheless, Ukraine's pavilion focused on the environmental impacts of Russia's full-scale invasion, and Ukrainian experts presented their research. Ukrainian NGO **Ecoaction** conducted an event in the pavilion devoted to CO2 emissions during military operations:*

- [Climate consequences of the full-scale invasion of Ukraine: Greenhouse gas emissions](#)

*The challenges of **Ukraine's "green" restoration** were also an active topic of discussion in Dubai. Returning to Ecoaction's analytical report, roughly 56% of war-related emissions will occur during the recovery period. So, from the perspective of the climate agenda, the processes of decarbonization of industry and transportation are extremely important. In this day and age, they must be a focus:*

- [Prospects for green recovery and decarbonization in Ukraine](#)

*Our ongoing coverage shows that the process of rebuilding Ukraine is complex and far from simple. Different interest groups seek to influence the planning process and the ongoing dialogue is naturally quite complex. Power engineers are in favor of restoring the **Kakhovka hydropower plant** and reservoir, while environmentalists categorically oppose its reconstruction. Civil society members united forces to establish **Kakhovka Platform**, an association focused on promoting sustainable and nature-oriented restoration:*

- [Ukrainian environmentalists unite against reconstruction of Kakhovka dam](#)



*The environmental disaster can also be turned to other purposes, including **Russian propaganda**. This past fall, the UWEC team came across a document in which Russia boldly attempted to place responsibility for the consequences of the Kakhovka dam's destruction on Ukraine. However, even the most passing examination shows, once again, that Russian propaganda distorts facts to serve its own interests:*

- **[Russia opens a new front in its information war against Ukraine](#)**

As December draws to a close, we gathered experts for a conversation dedicated to Ukraine's "green" recovery. The video of the webinar will appear soon on our [YouTube channel](#). Be sure to subscribe to our social networks and join the conversation.

We continue to follow the environmental consequences of the invasion on our [website](#), on [Twitter](#) (X), [Facebook](#) and on [Telegram](#).

Wishing you strength and peace!

Aleksei Ovchinnikov

UWEC Work Group



UWEC Work Group: The Year in Review

Alexej Ovchinnikov
Translated by Alastair Gill

The past year has shown that fighting in Russia's war in Ukraine is highly likely to continue for a long time yet. It was clear to UWEC Work Group experts even in the early phases of the full-scale invasion that studying the environmental impacts of the war would also be a long-term project and could span decades. After the guns fall silent, time will be needed to collect and analyze data and advocate for the country's green recovery. Beyond this, data collection and any research will be hampered for a long time by the need to de-mine huge swaths of land and clear former combat zones of military debris.

Catastrophe writ large: Destruction of the Kakhovka dam

The destruction of the Kakhovka hydropower plant's (HPP) reservoir system, which also fed the cooling system of the Zaporizhzhia nuclear power plant, was naturally the landmark event of 2023. The disaster not only dominated the attention of the media for several weeks, but was also the subject of intense discussion between experts from various countries.



- [Explosion of the Kakhovka hydropower plant: What are the environmental consequences?](#)

At a webinar held with Reporters Without Borders immediately after the disaster in June, experts from UWEC Work Group said that it would only be possible to carry out a full analysis of the consequences several months later. In this regard, they were right. Today it is clear that the direct negative consequences unleashed by the explosion were not as catastrophic as was originally feared at the time of the disaster.

The draining of the reservoir, however, has raised new questions and challenges for conservationists and ecologists alike.

- [Environmental consequences of the destruction of the Kakhovka dam \(video\)](#)

At the end of June, alongside [International Rivers](#), Ukrainian Nature Conservation Group, and other organizations, UWEC Work Group issued a joint statement that environmental groups do not support rebuilding of the HPP. The return of the river to its natural channel could facilitate the rebirth of ecosystems, while reconstruction of the HPP would only increase the negative consequences of the initial catastrophe.

- [Blasting Kakhovka dam – a ‘green choice’ test of Ukraine’s revival efforts](#)

A study carried out in the fall of 2023 showed that the worst fears – pollution and desalination of the Black Sea as a result of significant volumes of freshwater from the Dnieper River entering it – fortunately did not come to be. The marine ecosystem has absorbed this shock.

However, military activity continues to have an extremely negative impact on marine ecosystems. The overall environmental load on the Black Sea has increased several times over since hostilities began, boosting existing water pollution levels as a result of chemical discharges into large rivers, including the Dnieper, Danube, and Don.

- [Impact of Russia’s invasion of Ukraine on the Black and Azov seas](#)
- [Black Sea heals its wounds: 4 months after the Kakhovka catastrophe](#)

The ongoing debate over whether to restore the Kakhovka reservoir has been a far more important and principled issue. The area’s natural ecosystems have shown astonishing capacities for regeneration, and the site of the drained reservoir is already home to an actively recovering young forest, in an area



known historically as Velykyi Luh (“the Great Meadow”). Trees began to grow rapidly over the course of several months following the disaster, forming a thicket of young willow and poplar. In view of the overall loss of ecosystems as a result of the war, the incredibly successful recovery of nature at the site of the reservoir led Ukrainian environmentalists to advocate for the preservation of the young forests – and, in fact, for the entire recovering ecosystem – on the site of the drained reservoir, and call for the authorities not to reconstruct the hydroelectric power station.

- [Is it time to restore Velykyi Luh?](#)

However, the Ukrainian government has already announced its intention to flood the site of the former reservoir and rebuild the dam and hydropower plant, though for now these plans remain on paper: such reconstruction will only become possible after the left bank of the Dnieper has been liberated and the war is over. Environmentalists and conservationists see this window of opportunity, and they plan to take advantage of it.

An independent coalition, [Kakhovka Platforma](#), has been created to stop the ill-conceived plan to rebuild the hydropower plant, which independent hydropower experts argue has neither economic nor energy benefits. The goal of Kakhovka Platforma is to continue

to apply pressure on Ukrenergo and the ministries so as to avoid repeating the mistakes of the Soviet past, when [excessive regulation of the Dnieper River](#) first created the conditions for the Kakhovka disaster.

- [Ukrainian environmentalists unite against reconstruction of Kakhovka dam](#)

The destruction of the Kakhovka hydropower dam raised another important topic: the issue of ecocide. Although ecocide is an established criminal offense in both Ukrainian and Russian legislation, the legal system has not yet been adapted to reflect this. At the international level, meanwhile, ecocide remains more of a concept than an effective mechanism for ensuring accountability for crimes against nature. The result is that a large number of deliberate acts of destruction across the planet have gone unpunished. This issue is relevant not only in conflict zones, but the whole world.

- [On the path to international recognition of ecocide](#)

The greatest challenge: Collecting and verifying data in war zones and occupied areas

There has been no significant movement along the frontline over the



last year. Since Ukraine liberated much of the land it lost in the first months of the full-scale war, the two armies have been forced to switch to positional warfare in the east and southeast of Ukraine, essentially turning vast areas into scorched wasteland.

It is difficult to conduct analysis of the environmental consequences in areas where fighting took place only in the first months of the war. Most of these lands are still closed to the public, making it impossible to carry out full soil and biodiversity studies. It is clear that collecting and analyzing data on the war's environmental consequences could take years.

- [Impact of military action on Ukraine's wild nature](#)

Ukraine's environmental losses as a result of the invasion are not measured only in the pollution caused by shelling or the destruction of infrastructure, forest fires and environmental disasters. Lost access to ecosystem services, such as recreational use of forests, is difficult to quantify. Additionally, the war is leading to the destruction of Ukraine's flora and fauna. Many unique endemic species are suffering, and may well disappear completely (if they have not already done so) if the war goes on for many more years. Another serious problem for Ukraine's biodiversity is the rapid increase in the number

and volume of invasive species in areas whose natural ecosystems were destroyed as a result of fighting. These zones could become bridgeheads from which invasive species can spread not only into Ukraine and neighboring countries, but even across Europe as a whole.

- [Military combat impacts on ecosystem services in Ukraine](#)
- [Threats of Russian invasion for protected small mammals in Ukraine](#)

As we have repeatedly noted, however, most data on the environmental consequences of Russia's full-scale invasion of Ukraine can currently only be obtained through satellite imagery and open source intelligence, known as OSINT. Working with open-source data requires a careful approach, as false and unverified information continues to proliferate – the war is not only being waged on the frontlines, but also in the information field.

- [Environmental fakes. How false environmental news is being used in the information war](#)

UWEC Work Group experts are especially concerned about the increasing frequency with which Russia's propaganda machine weaponizes the environmental and



climate agenda. As a result, Ukraine is finding itself more and more the target of criticism and even outright accusations, though these are unjustified and quickly fall apart upon detailed examination. It is crucial to remember that it is Russia that started the full-scale war. Moscow must be held primarily responsible for the consequences of its aggression.

- [Russia opens a new front in its information war against Ukraine](#)

In 2023, with support from [Reporters Without Borders-Sweden](#) and [Svea](#), UWEC Work Group has hosted a webinar series intended as a forum for journalists covering the war's environmental consequences and other participants craving reliable information. During the series UWEC invited experts from organizations such as the Conflict and Environment Observatory ([CEOBS](#)), [Pax for Peace](#) and [Ecoaction](#), and experts analyzing data collection on the environmental consequences of the war to share their approaches and discuss the issues. For now, OSINT, satellite imagery, and insider information continue to be the most accessible sources of data.

- [Gathering and analyzing data on the environmental consequences of Russia's invasion of Ukraine \(video\)](#)

When it comes to analyzing the environmental consequences of the war, one of the biggest problems is the lack of any information about the environmental situation in Russia-occupied territories. Scientists can only guess what is happening, for example, in Askania-Nova, one of the largest nature reserves in Eastern Europe. In 2023, the Ukrainian reserve's management were allowed to leave by the occupiers, but some of the researchers remained. Russian authorities have decided to restructure the reserve and install a new administration and are even considering repurposing Askania-Nova as a tourist site.

- [Askania-Nova biosphere reserve captured by invaders](#)
- [Fires in Askania-Nova: Consequences of military occupation of a reserve](#)

Reliable information about goings on in the territories occupied since 2014 is also generally either inaccessible or unverifiable. UWEC Work Group has published a series of articles about the environmental consequences of the war for both Crimea and the Donetsk region.

- [The Crimean Bridge: Environmental impact of Russia's 'project of the century'?](#)
- [Unregulated coal mining destroys Donbas nature](#)



To make working with open data and analytical centers more convenient, UWEC Work Group experts have created a special list of data sources from monitoring centers that collect information on environmental damage as a result of military operations in Ukraine. The publicly available list is constantly updated, which not only allows us to obtain an independent picture of the environmental consequences of the war, but also makes it possible for us and other truthseekers to verify data.

- [List of information centers and monitoring tools](#)

Beyond Ukraine: Environmental consequences in the wider region

Although the fighting is taking place primarily on Ukrainian soil, the impact of the war has had a deleterious effect on environmental programs throughout the region, and nowhere has this been felt more than in Russia.

The outgoing year will be remembered as one which dealt a serious blow to the Russian environmental community, many of whose representatives condemned the Kremlin's war in Ukraine from the first days of the invasion. The Russian government's subsequent designation

of international organizations such as Bellona, Greenpeace, WWF International, and the Altai Project as "undesirable" has seriously jeopardized the implementation of environmental, climate and environmental programs across relatively large areas.

Such events also distract attention from what is happening in Ukraine itself. In addition, the latest escalation of another major international conflict, the confrontation between Israel and Palestine, also began to have a significant impact on global media and the social and political agenda, pushing Ukraine into the background. Many of the protests by climate activists at COP28 in Dubai were devoted specifically to the conflict in Israel and Palestine.

- ['Under the guise of defending nature... they tried to influence government decision-making'](#)
- [Greenpeace: Instead of an epilogue](#)
- [Bellona: Undesirable openness and the sanctions war](#)

In Russia itself, meanwhile, the environmental consequences of the war have become increasingly obvious. For example, the militarization of greater Moscow (the placement of anti-missile batteries, etc.) has threatened to destroy the natural and historical heritage of Kolomenskoye Park, a site under UNESCO protection. At the same time, the Kremlin's desire to diversify its



energy market by building a new gas pipeline through Mongolia to China could have a devastating impact on the nature of the Baikal region. These are just two examples of the war's negative impact on the Russian environment that our experts are analyzing.

- [Moscow turns rocket sights on its own heritage](#)
- [Gas intrigues: Pipelines, nature preserves, NGOs, and the war](#)

In Belarus, the persecution of environmental organizations and activists began back in 2020-2021, before the start of the full-scale invasion. It was then that many experts and activists, including members of the UWEC Work Group, were forced to leave that country. This restricted the possibility of analyzing, for example, the consequences of the militarization of Polesia, which essentially closed off a region that is important for biodiversity research. We discussed the persecution of environmental activists and experts in Belarus and Russia in a recent webinar.

- [Environmental activists in Belarus and Russia– Before and after the full-scale invasion of Ukraine \(video\)](#)

One important and extremely negative consequence of the war is the militarization of border areas in

the region. The construction of a fence on the border of Belarus and Poland has already divided one of the largest national parks in Europe, Białowieża Forest, a move which could have serious long-term consequences for the region's ecosystem. Ukraine is also actively hardening its border with Belarus, a process which not only blocks scientific research and transboundary wildlife movements, but also diminishes the effectiveness of environmental practices. Discussions are also under way in Kyiv on future construction of fortified fences along its border with Russia. All these actions lead to the separation of entire ecosystems, threatening the conservation of biodiversity.

The war has put an end to some cross-border projects and significantly complicated the implementation of others. Today it is difficult to find transboundary environmental projects in the region that can continue without problems, despite the fact that it is precisely these types of projects that the environmental community continues to see as the most effective and strategic means to addressing environmental and conservation issues.

- [UNESCO condemns construction of border fences](#)
- [Beasts and barriers: Obstacles along international borders and their impact on land-based vertebrates](#)



- [Dniester River – Evolution of transboundary river basin management in the post-Soviet space](#)

This review is not able to cover all the topics that UWEC Work Group's experts and authors covered in 2023. For instance, we have also [begun to analyze](#) Ukraine's present and future green recovery. This topic is likely to become a key priority for UWEC Work Group in the coming year.

UWEC has also analyzed the war's influence on [environmental practices](#) in Ukraine, including the difficulties experts and researchers face in their work.

The next year will require renewed efforts by UWEC Work Group experts and contributors to analyze and document the ongoing environmental and climatic impacts of the war. It is clear that it will take decades to solve the problems the invasion has inflicted upon the environment. However, ensuring that these consequences are studied and analyzed as thoroughly as possible now, will support creation of detailed restoration plans for Ukraine, plans that focus on the needs of nature and people alike. That approach offers the best hopes for the sustainable development and prosperity of Ukraine and its neighbors. •



Climate consequences of the full-scale invasion of Ukraine: Greenhouse gas emissions

Fyodor Severyanin

Translated by Jennifer Castner

New data was presented on additional greenhouse gas emissions resulting from military activities in Ukraine at the UN COP28 climate conference that ended in mid-December in Dubai, UAE.

Consequences of 18 months of war

By December 2023, the United Nations [reported](#) that the full-scale Russian invasion of Ukraine had killed more than 10,000 civilians and injured more than 18,000. The World Bank has

[estimated](#) the cost of restoring Ukrainian infrastructure at \$411 billion.

The war has also had a serious negative impact on the environment – one of the most serious consequences being the increase in greenhouse gas emissions linked to the military conflict.



[According](#) to the Ukrainian NGO Ecoaction, over 150 million metric tons of [CO₂ equivalent](#) (CO₂e) were emitted into the atmosphere over the last 18 months of the conflict – that amount is equivalent to Belgium’s emissions for a year and is estimated at approximately \$9.6 billion in cost.

The report’s authors argue that such emissions not only exacerbate the climate crisis, but also divert resources from environmental initiatives in Ukraine as the country focuses on reconstruction and defense.

New report on climate damage

The 28th Conference of the Parties to the UN Framework Convention on Climate Change in Dubai, UAE (COP28) presented data on the climate costs stemming from the war in Ukraine and discussed ways to minimize defense sector climate impacts.

The methodology for calculating greenhouse gas emissions is outlined in Ecoaction’s report [“Climate Damage Caused by Russia’s War in Ukraine,”](#) based on a detailed analysis of emission sources resulting from the conflict.

Initial estimates of climate damage presented a year ago at COP27 in Sharm el-Sheikh considered emissions associated with refugee movements, military action, and fire.

Subsequent assessments, including the one [presented](#) at the June 2023 UN Interim Climate Conference in Bonn, expanded that initial scope to the first 12 months of the conflict with a focus on its impact on Europe’s energy sector.

The [next assessment](#) in the report covers a period of 555 days since the start of the conflict and highlights the need to hold Russia accountable for climate damage.

The report proposes methods for valuing climate damage in monetary terms and explores legal mechanisms for obtaining compensation. The option of using offsets to mitigate the consequences of greenhouse gas emissions in Ukraine is also being considered.

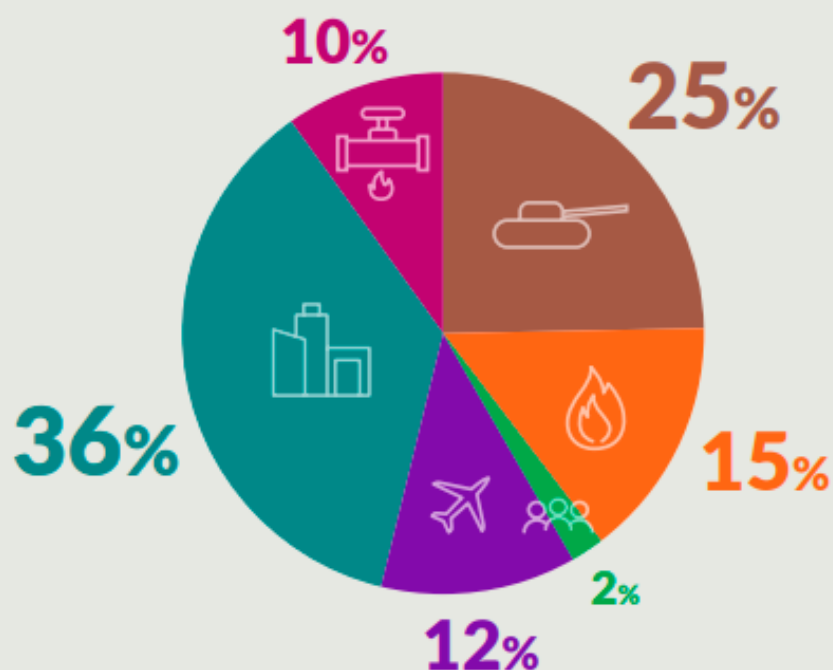
Evaluating emissions

Data on greenhouse gas emissions were obtained from various sources, including fossil fuel consumption, areas affected by fires, or the number of damaged apartment buildings. The war is ongoing and many data sources are unavailable or have limited access for security reasons.

For example, visual inspection is often impossible due to security issues, the mobilization of qualified personnel to defend the country, or due to territories being occupied. Consequently, satellite remote-sensing and reliance on indirect data are often the only options available. The report’s authors contend



Total GHG emissions



**TOTAL
EMISSIONS:
150
MtCO₂e**

SECTOR	EMISSIONS 18 MONTHS (MtCO ₂ e)	PERCENTAGE, %
Warfare	37.0	25
Fires	22.2	15
Refugees	3.0	2
Civil aviation	18.0	12
Reconstruction	54.7	36
Nord Stream 1 & 2	14.6	10
TOTAL	150	100

Table 1: Distribution of GHG emissions over the various sectors

Total GHG emissions caused by the war. Image source: Climate damage caused by Russia's war in Ukraine [report](#)



that these estimates are based on many assumptions subject to future revision.

Emissions caused by military operations are estimated at 37 million tons of CO₂e, while those caused by fires amount to an additional 22.2 million tons. However, the largest source of emissions lies in the future: potential emissions associated with post-war reconstruction, an amount estimated at 57 million tons of CO₂e.

Damage compensation

Ecoaction's report emphasizes that Russia must be held accountable for these emissions, despite the absence of clear international enforcement mechanisms.

Cumulatively, an additional 150 million tons of CO₂e were emitted, and they certainly come at a cost to both climate and society. The report's authors suggest that assessing the climate damage caused by Russia's war requires setting a price for each ton of CO₂e.

The most authoritative and widely used pricing scheme in their opinion is the "shadow" carbon price, based on a [2017 study](#) by the High-Level Commission on Carbon Pricing, led by Joseph Stiglitz and Nicholas Stern.

That scheme is based on the [Paris Agreement's](#) goals of keeping global warming well below an increase of

2°C. This metric produces high and low carbon price recommendations, starting at US\$40/\$80 in 2020 and rising to US\$50/\$100 by 2030.

This evaluation mechanism is widely used. In particular, it is used by several international financial institutions, such as the World Bank and the European Bank for Reconstruction and Development (EBRD).

The credibility and widespread use of the shadow price methodology established by that Commission allowed the report's authors to choose it when analyzing emissions from war.

Since the shadow price for 2022-2023 averaged \$64 per ton of CO₂e, September 2023 calculations estimated total greenhouse gas emissions from Russia's military intervention at \$9.6 billion.

The authors emphasize that holding states accountable for their impact on the climate in a military conflict is a difficult task in the context of contemporary international law. They point to active debate on the subject, supported by the efforts of the International Law Commission and the International Court of Justice. The report highlights the UN's recognition of the serious environmental consequences of armed conflict that can exacerbate global problems such as climate change and biodiversity loss.



The report also describes efforts by Ukraine and its international partners to ensure Russia is held accountable for damage from aggression. The authors draw attention to the development of an [international reparations mechanism](#) under the auspices of the Council of Europe that includes compensation for losses suffered by Ukraine and other countries.

They also highlight the importance of including climate change-related losses in the reparations framework. They point to political consensus around the concept, despite the thorny question of funding. The report also discusses possible international criminal proceedings, which could include charges of environmental crimes and the role of private companies that can use arbitration mechanisms to recover climate-related losses.

Green recovery

Ukraine has several methods for compensating damage resulting from the war.

The authors of the report note that one of the most obvious ways is to restore forests in burnt areas and other nature-oriented solutions. Sustainably managed forests can recover and absorb carbon dioxide emissions, although the process can take considerable time.

The potential for accelerated deployment of renewable energy in Ukraine, including wind and solar

power, was highlighted as a way to reduce war-related emissions. They propose investments in decentralized power generation capacity, grid modernization, and energy storage as means to accelerate the transition away from fossil fuels. Ukrainian energy industry corporation DTEK launched a Ukrainian national initiative to increase renewable energy generation in response to the global “30 by 2030” initiative. The initiative will increase renewable energy production in Ukraine to 30 GW by 2030.

The third method being considered is low-carbon rehabilitation of damaged buildings and infrastructure. The report’s authors analyzed ways to minimize emissions stemming from construction and discussed the sources of these emissions and approaches to a low-carbon recovery. They distinguish between embedded carbon (building materials) and operational carbon (energy use), exploring how the carbon footprint can be reduced at different stages of construction.

For example, concrete’s carbon intensity can be reduced by adding crushed granulated blast furnace slag (byproduct of the metallurgical industry), pulverized fuel ash (byproduct of coal combustion), and fired clay, all of which are readily available in Ukraine and can significantly reduce the cement content of concrete. There are also alternative types of cement, e.g. cements produced using less limestone or using



processes that require less energy. Improvements to the cement production processes are also being considered to reduce energy consumption and greenhouse gas emissions during clinker brick production.

The authors highlight their conclusions that approximately 50% of emissions during reconstruction come from building and industry and underscored opportunities to reduce them. They also describe ways to encourage the construction industry to reduce emissions as a whole and suggest the necessary next steps toward that goal.

According to Alexey Ryabchin, former Deputy Minister of Energy and Environment of Ukraine (2019-2020) and moderator of the event at COP28, the question of when Ukraine will be able to receive compensation from Russia as an aggressor could serve as the basis for creating an “aggressor pays” mechanism that is similar to the “polluter pays” principle. Perhaps this mechanism could be used in the future to prevent new conflicts. •

Main image source: Climate damage caused by Russia's war in Ukraine [report](#)



Prospects for green recovery and decarbonization in Ukraine

Fyodor Severyanin

Translated by Jennifer Castner

The topics of renewable energy, further decarbonization (even in wartime), and the “green” recovery of Ukraine were central themes for events in the Ukrainian pavilion at the UN COP28 Climate Conference in Dubai this month.

Ukraine’s pavilion at COP28

At the 28th UN Climate Change conference (COP28) in Dubai in December, Ukraine presented its pavilion for the second time ever. The goal was to demonstrate the scale of environmental damage caused by Russia’s full-scale invasion of Ukraine

and propose recovery measures. One of the key messages heard in the pavilion was that despite the war, Ukraine is already actively building its green future.

In particular, the country presented an already implemented renewable energy project – the Tiligul wind power plant, built during the war. In addition,



this year the pavilion also announced the launch of the [Global Platform](#) for Assessing Environmental Damage from Military Actions, an initiative announced by Ukraine's President at COP27 in Egypt.

"Despite the difficulties of war, our commitment to a green transition in Ukraine remains unchanged. Indeed, the war is forcing us to transform our energy system even faster, as we realize that renewable energy systems are much more sustainable and secure. DTEK recently completed construction of a wind farm – Tiligul Wind Power Plant – just a few miles from the front line, and we will quadruple its current size. If Ukraine can do this today, think about what can be achieved in peacetime," said **Maxim Timchenko**, CEO of DTEK, at the event.

In 2022, active work began in Ukraine on plans for the country's restoration, especially in Kyiv, Chernihiv, and Sumy regions. The main focus is on a green recovery, given the damage caused to the environment by military action. One such initiative is a renewable energy program implemented by the NGO Ecoclub. The work includes installation of solar power plants in hospitals, and implements an European Union program replacing incandescent lighting with LED lighting to increase [energy efficiency](#).

The European Commission and other international organizations are already

contributing to the reconstruction of Ukraine. In 2023, the European Bank for Reconstruction and Development (EBRD) supported Ukraine's energy recovery, entering into a memorandum of understanding with Ukrainian [energy companies](#). The United Kingdom is contributing £10 million million to Ukraine's green recovery through the "Innovate Ukraine" competition, a competitive grant program aimed at developing innovative technologies in the field of sustainable development and [energy](#).

Ukraine's decarbonization

In October 2023, the environmental organization Ecoaction presented an [analysis](#) of the state of affairs in the field of decarbonization in Ukraine.

Alongside a number of other nations, in 2021 Ukraine [announced](#) its intention to achieve climate neutrality by 2060. In July 2021, the government set a goal of reducing greenhouse gas emissions by 65% (of 1990 levels) by 2030. It is worth noting that by this time the country had already reduced its emissions by 62.5%, largely due to the industrial decline following the collapse of the Soviet Union rather than thanks to any targeted actions.

The government's Decarbonisation and Energy Efficiency Transformation Fund (DEETF) was created in 2023 and will be partly financed by a CO₂ tax. First of foremost, that tax will be paid by



large industrial enterprises. Prior to the fund's creation, these tax revenues fed straight into state coffers without being earmarked for a specific purpose.

Currently, the tax rate on CO₂ emissions is 30 hryvnia per metric ton. These revenues from large industrial enterprises will not cover all of the anticipated costs of decarbonization – it is hoped that international loans and grants can be used to bridge the gap.

Starting January 1, 2024, the DEETF will allocate funds to the development of renewable energy sources, alternative fuels, and the implementation of measures to reduce greenhouse gas (GHG) emissions.

It is noteworthy that despite the introduction of Ukraine's [Law No. 377-IX](#) "On the principles for monitoring, reporting, and verifying GHG emissions" on January 1, 2021, Ukraine still lacks an effective emission monitoring system. As experts on hand in the Ukrainian pavilion noted, this greatly slows the process of assessing emissions and subsequent decarbonization. Running an effective Emissions Trading System (ETS) requires robust monitoring to provide an accurate picture.

That law does seek to harmonize legislation with European standards, including implementing the provisions

of the EU's Emissions Trading Scheme [Directive No. 2003/87/EC](#). That directive offers a promising solution to the problem, but requires effective implementation.

The expert authors of Ecoaction's [report](#) note that Russia's war on Ukraine prevents that directive from being fully implemented domestically. The Ministry of Ecology reports, as of May 2023, only 482 facilities (largely in the energy, industry and transportations sectors) were included in the Unified Register of MECs, representing just 27% of facilities emitting greenhouse gases in the country.

Only 109 reports monitoring of GHG emissions from registered installations were submitted, a number that represents just 6% of the total number of emitting facility operators.

Greenhouse gas emissions in Ukraine

According to the [National Inventory](#) of Anthropogenic Emissions and Sinks of Greenhouse Gases in Ukraine, in 2021, total GHG emissions amounted to 341.5 million tons of CO₂ equivalent (CO₂e). The largest sectors contributing the most to these emissions are: energy along with transport (64% of total emissions), industry (18%), and agriculture (14%).

Following, each sector is investigated more deeply for its contribution to greenhouse gas emissions.



Energy in Ukraine

Ukraine's energy sector is the largest emitter of GHG and, if the EU's experience is anything to go by, decarbonizing this sector is challenging. However, in Ukraine the situation began to change dramatically after the start of the full-scale Russian invasion.

Beginning in early October 2022, Ukraine's energy infrastructure came under Russian attack, with more than 1,500 missiles, drones, and artillery shells fired. More than a hundred missiles hit large energy facilities. [Impacts to infrastructure](#) reduced Ukraine's generating capacity by 61.4% in 2022, falling from 36 GW to just 13.9 GW. At the same time, about 10 GW of installed capacity remained in occupied territories, including Zaporizhzhia Nuclear Power Plant (generating capacity of 6 GW).

Green energy production was also affected by the war: most renewable energy generation was taking place in southern Ukraine in areas occupied since the beginning of the war. Russia's invasion meant that 90% of windpower and 40-50% of solar power generation was shut down, damaged, or destroyed. Today, renewable energy infrastructure is gradually being restored, but the damage was serious and restoration will take time.

Prior to the start of the war, there were 15 power units at four nuclear power plants in Ukraine. 12 of them were already beyond their service life, having

already been in operation for more than 30 years. Although nuclear energy is included in the EU's green taxonomy as a "transition" sector, discussions remain relevant. Ecologists and environmental activists hold that nuclear power is not environmentally sustainable and is associated with many dangers. Russia's full-scale invasion demonstrated one danger quite clearly, in seizing nuclear power plants at Zaporizhzhia and Chornobyl as well as shelling of the South Ukrainian Nuclear Power Plant.

Decarbonizing the transportation sector

Before the full-scale invasion began, the transport sector accounted for approximately 12% of all GHG emissions. [2019 data](#) indicates that 71% of transport sector emissions came from road transportation, 12% from gas transportation and 17% from off-road transport (agricultural equipment, etc.). Additionally, many vehicles used in Ukraine are outdated and lack fuel efficiency, resulting in added negative impacts on the environment and public health.

Due again to Russia's occupation of parts of southern and eastern Ukraine and to war-related changes in the transportation system, GHG emissions in this sector have also changed, but no precise data is available.

The transportation sector offers great potential when it comes to reducing



emissions. Experts [suggest](#) that to decarbonize this sector, efforts must be made to:

- Develop public transportation to replace private cars, the main source of transportation-related emissions;
- Reduce the use of private vehicles powered by gasoline and diesel engines;
- Encourage the use of bicycles and develop bicycling infrastructure;
- Increase the share of passenger and cargo transportation by rail;
- Electrify railway tracks;
- Promote and provide opportunities for walking by improving pedestrian crossings and developing mixed-use neighborhoods.

Decarbonizing industry

In GHG emissions terms, industry was a key economic sector for Ukraine before the outbreak of military hostilities. Since then, it has suffered significantly from Russia's full-scale invasion: Ukrainian industrial production fell by 38% in 2022, according to the [World Bank data](#).

Prior to the war, ferrous metallurgy and the production of non-metallic mineral materials (such as cement and other construction materials) were the main sources of GHG emissions in Ukrainian industry. Since the

beginning of the war, especially after the occupation of the city of Mariupol and the destruction of large metallurgical and other enterprises in the regions of Donetsk, Kharkiv and Luhansk, the balance of GHG emissions has changed significantly. At the moment, the volume of emissions remains uncertain.

Using data on pre-war levels, experts [suggest](#) the following moves to decarbonize the industrial sector:

- Implementation of a GHG emissions monitoring system in accordance with existing legislation;
- Mandatory implementation of "smart" energy management systems;
- Reducing the energy intensity of production;
- Use of global best management practices and technologies (BMP) in accordance with [Law 6004-d](#);
- State and public-private financing of production modernization, including loans, grants, compensation for capital and operating expenses, and tax breaks;

Agriculture in Ukraine

Agriculture and livestock farming, as well as industry, occupied an important place in the Ukrainian economy before the outbreak of hostilities. In 2021, GHG emissions from this sector accounted



for 14% of total emissions. Over the past decade, agriculture has seen the most significant increase in GHG emissions, [increasing by almost 30%](#) before the war.

GHG emissions from agriculture are primarily associated with the use of mineral nitrogen fertilizers, processing of agricultural waste, methane emissions from livestock, loss of organic carbon due to soil cultivation, use of fuel-powered agricultural machinery, and many other factors.

At the same time, climate change is making agriculture more vulnerable, especially in regions of central and southern Ukraine that experience higher temperatures, water shortages, and frequent extreme weather events. This creates unpredictability in crop production and has indirect impacts on emissions.

Given the intensification of these factors, measures are needed to mitigate and adapt to climate change, as well as to address new environmental challenges associated with war.

After almost two years of full-scale military aggression, approximately 470,000 hectares of agricultural land have become unusable in the de-occupied territories, as they await de-mining and restoration. Significant additional territories remain under occupation.

To decarbonize agriculture, experts [also recommended](#) the following actions:

- Support organic farming and low/no-till agriculture;
- Stimulate changes in the structure of sown areas to gain efficiencies in the use of agricultural lands;
- Remove degraded lands from cultivation;
- Implement nutrient and agrochemical management systems;
- Develop and implement a monitoring system for organic carbon content in soil;
- Produce and use solid biofuel generated from agricultural waste;
- Calculate emissions from livestock farming (including all production cycles) and track biogas production generated from livestock waste;
- Leverage information and telecommunication technologies to improve efficiency in the agriculture sector.

International collaboration

External factors motivating Ukraine towards decarbonization are even more important now than before the start of the full-scale war. Prospects for joining the European Union and the introduction of the Carbon Border Adjustment Mechanism (CBAM) are both important external factors for the country.

Under the CBAM, importing countries including Ukraine are being required to report GHG emissions resulting from



the production of carbon-intensive goods (e.g., iron, steel, aluminum, fertilizer, electricity, and hydrogen) that they supply to the European Union as of 1 October 2023. From 1 January 2026, those countries will also be subject to additional duties when importing these goods. The European Union is Ukraine's largest trading partner, and the EU's share in foreign trade turnover was 63% in 2022.

On 14 December 2023, the European Union approved the start of negotiations for Ukraine's accession, and consequently the EU's "[Green Deal](#)" can become both an economic and

political lever for the development of decarbonization projects domestically.

Data and trends aside, it is obvious that it will be only possible to start conversations about full-fledged projects to achieve climate neutrality after the war ends. Restoring Ukraine will require significant resources, which will lead, in turn, to additional CO₂ emissions.

Achieving climate neutrality goals not only for Ukraine, but also for the whole of Europe depends on plans for Ukraine's recovery and the extent to which specific "green" and climate-neutral technologies are implemented. •

Main image source: [IPG](#)



Ukrainian environmentalists unite against reconstruction of Kakhovka dam

Viktoria Hubareva

Translated by Alastair Gill

The Ukrainian government and Ukrhydroenergo are set on building a new hydropower plant on the site of the one blown up by Russian forces in June 2023. Meanwhile, environmentalists are speaking out against the construction project, which could cause serious harm to the surrounding area. Read on to find out how the situation is unfolding.

On June 6, 2023 the dam of the Kakhovka hydropower plant (HPP)

on the Dnieper in southern Ukraine collapsed following an explosion. The dam's destruction resulted in a large-scale environmental catastrophe caused by the sudden, rapid, and uncontrollable release of the water in the dam's reservoir.

As a result of the destruction of the Kakhovka dam and the resulting discharge of water from the reservoir, whose surface covered an area of 215,500



hectares and was used for shipping, irrigation, water supply, fishing, and recreation, Kakhovka reservoir simply ceased to exist, leaving most of its bed exposed. It soon dried up.

On its way downstream, the released torrent of water from the reservoir washed away houses and people and flooded agricultural fields, which not only created an environmental disaster, but also resulted in immense financial losses.

What is Ukraine planning to do with the former Kakhovka reservoir?

Just over a month after the catastrophe, the Cabinet of Ministers of Ukraine passed a decree on the reconstruction of the reservoir and dam of the Kakhovka HPP. And four months after the disaster, in October, the government approved another document, a 2023 [law](#) “On the prevention of the misuse of the lands of the Kakhovka reservoir”, which has banned the formation, transfer of ownership, or use, as well as any change in the purpose of the land occupied by the Kakhovka reservoir.

The bill has been presented in the Ukrainian parliament and has already been criticized by the Verkhovna Rada’s scientific advisory body, [the Central Scientific Expertise Directorate](#). The bill’s provisions are neither consistent with each other nor with other Ukrainian legislative acts, and therefore require

technical, legal, and editorial revision. And this is not the only criticism of both the act itself and the idea of restoring the Kakhovka hydropower plant as a whole.

Yet it is clear that Ukrhydroenergo is firmly set on rebuilding the hydropower plant and dam. **Oleh Terletsy**, deputy chairman of Ukrhydroenergo’s supervisory board, has [said](#) that the company is focused on large-scale projects, and the construction of smaller facilities is of little interest.

At the same time, Terletsy said that as long as Ukraine remains under threat from Russia, no construction work will be carried out on the site of the former Kakhovka reservoir. After the war, however, new structures will be built to store water in the upper part of the reservoir, and work will be carried out to drain its lower part.

After this, according to a Ukrhydroenergo representative, tests and studies will be carried out. Options for restoring the hydropower plant will be proposed based on the conclusions drawn, and only after that will the environmental impact assessment procedure be carried out.

They will then determine how the construction of the dam and power plant will be carried out. The company has not yet provided any more details about the Kakhovka HPP, citing non-disclosure requirements prohibiting the publication of “a large amount of information” due to the war.



‘There is no alternative to restoring the Kakhovka reservoir’: scientific institutions refute Ukrhydroenergo’s statement

This was the unequivocal title of a text [published](#) on Ukrhydroenergo’s official website. Moreover, the publication claims that “This is reported by leading scientists from the National Academy of Sciences and the National Academy of Agrarian Sciences, which recently carried out field research on the bed of the Kakhovka reservoir, at the initiative of Ukrhydroenergo.”

The text reports that as part of the first stage of the pilot project, Ukrhydroenergo is collaborating with Ukrhydroproekt and the State Environmental Academy of Postgraduate Education and Management to develop recommendations for a comprehensive assessment of the current state of the Kakhovka reservoir and its adjacent territories.

However, the most interesting claim made in the article is that in August-October 2023, scientists from various institutes of the National Academy of Sciences and the National Academy of Sciences of Ukraine, including the Schmalhausen Institute of Zoology and the Institute of Archeology, allegedly conducted fieldwork and other comprehensive research. According to environmentalist **Oleksiy**

Vasyliuk, head of the Ukrainian Nature Conservation Group and a UWEC Work Group expert, these are precisely the institutes that were least likely to provide conclusions that the Kakhovka reservoir should be restored: it is in the scientific interests of both institutes to respectively study the fauna that now inhabits the area and conduct archeological research at the bottom of the former artificial reservoir.

After being contacted by representatives of the UWEC Work Group, the Institute of Zoology stated that the agreement with the State Ecological Academy had not yet been fulfilled, and field research had not been carried out.

“Zoologists only conduct analyses of the state of the animal world and development prospects, and the economic, environmental, and hydrological institutions will carry out their reviews,” said **Viktoriya Ivanova**, the scientific secretary of the Schmalhausen Institute of Zoology. “Only after this will there be a final conclusion. There’s more than one stage of research; everyone’s still working, but our zoologists haven’t even gone there yet.”

Viktor Chubai, director of the Institute of Archeology, confirmed to UWEC in a telephone conversation that field work had been carried out, but said that the “news” from Ukrhydroenergo came as a surprise to him.

“We have established that there are 95 archeological sites on the territory of



the reservoir that could potentially be damaged or have already suffered, first from flooding and then from a sharp decline in water levels,” he said, adding that his colleagues had already analyzed 15 of these sites.

“Our conclusion is that it is necessary to conduct archeological exploration to establish exactly what remains after all the sites spent almost half a century under water, and, secondly, to determine how many archeological sites need to be excavated. According to Ukrainian law, everything located on land allocated for future construction must be excavated. This is our conclusion, and we provided it in writing a month and a half ago,” said Chubai.

He also noted that the categorical statements issued by Ukrhydroenergo are “words for the sake of words,” describing them as unfounded. Both the civil and scientific communities of Ukraine are outraged by the uncontested plans, while in the eyes of the public the government has been too hasty in making these proposals.

Ukrainian environmentalists resist

Fourteen Ukrainian public environmental organizations have come together to form a coalition called Kakhovka Platforma, the aim of which is to develop models for integrated solutions for the recovery of territory around the Kakhovka HPP.

Kakhovka Platforma has already [written a letter](#) to Ukrainian Prime Minister **Denis Shmyhal** addressing the issue of government approval of a pilot project to restore the Kakhovka hydropower plant.

As the authors of the letter note, the options for rebuilding the Kakhovka HPP can be divided into **three groups**:

- Abandoning the Kakhovka HPP and reservoir, the result of which will be the restoration of the ecosystems of Velykyi Luh to something close to their previous form, which are of great environmental and historical significance. Water supply issues will be resolved via the transfer of water intakes to the Dnieper River bed, the reduced water consumption, and the transition to more efficient technologies in the agricultural sector and metallurgy. At the same time, renewable energy should replace the energy formerly produced by Kakhovka HPP, thereby closing the energy production deficit with the capacities of the Kakhovka HPP by replacing them with alternative options for the generation and storage of energy, and shipping can be restored by improving the suitability of the Dnieper channel for navigation;
- Restoration of the reservoir to its previous size and the



reconstruction of the Kakhovka hydropower plant (probably in a modernized form), as well as related infrastructure (water intakes and canals). This option is being actively promoted by Ukrhydroenergo;

- Other options (of various degrees of feasibility). For example, by rebuilding the power plant with a smaller reservoir (in particular, by diverting a channel of the river and only there raising the water level within the limits of the diverted flow) and the reconstruction of the hydropower complex.

Kakhovka Platforma has yet to receive a response to its letter, and Ukrhydroenergo continues to make loud statements. For now, neither restoration nor full-fledged research will be possible until the left bank of the former Kakhovka reservoir is completely liberated, due to the proximity of ongoing fighting. The issue has therefore been put on hold for now, which contributes to the restoration of the Velykyi Luh ecosystem.

However, it is now essential to continue dialogue and insist on

developing solutions and strategies that will both satisfy the economic needs of the region and prevent the creation of a morally questionable and technically outdated copy of the Kakhovka hydropower plant.

The UWEC Work Group will continue to monitor developments in the aftermath of the destruction of the dam and draining of the Kakhovka reservoir, which is yet another catastrophic result of Russia's invasion of Ukraine. Read more about the key issues surrounding the Kakhovka HPP in our articles:

- [Explosion of the Kakhovka Hydropower Plant: What are the environmental consequences?](#)
- [Black Sea heals its wounds: 4 months after the Kakhovka catastrophe](#)
- [Is it time to restore Velykyi Luh?](#)
- [Blasting of Kakhovka Dam – a “green choice” test in Ukraine’s revival efforts](#) •

Main image: Part of the riverbed, located on the territory of the Kamianska Sich National Park, is covered with meadow plants. Source: [Serhiy Skoryk](#)



Russia opens a new front in its information war against Ukraine

Viktoria Hubareva

Translated by Alastair Gill

The Russian Federation is beginning to shift responsibility for the environmental crimes it has committed on Ukrainian soil... to Ukraine itself. We examine the “logic” behind Russia’s accusations. How is this justified and how does it differ from the Ukrainian approach to environmental war crimes?

On September 18, the Russian Ministry of Foreign Affairs (MFA) published a text “On Ukraine’s responsibility for

the degradation of the environment in the region.” UWEC Work Group understands from undisclosed sources that this “report” was sent by the Russian Consulate General in Bonn to several international organizations.

In short, the “report” contains accusations against Ukraine for environmental crimes it has allegedly committed, based on data largely taken from Ukrainian media. While in general



the text represents, as UWEC Work Group expert [Eugene Simonov](#) puts it, “an example of blunt propaganda”, its very appearance in the information space shows an interesting pivot in the context of Russian rhetoric in its information war against Ukraine. Indeed, Russia had previously paid no attention to the topic of environmental crimes in the media space, with the exception of several [mentions](#) in 2014 of Ukraine’s closure of the North Crimean Canal, via which water from the Dnieper River is supplied to Crimea. But in the fall of 2023 Russia [again began talking](#) about the North Crimean Canal.

The Ministry of Foreign Affairs is confused... about geography

Even now, the Russian Foreign Ministry still harks back to the events of 2014: “The available data indicates that Kiev, during **its aggression against Crimea and Donbas** since 2014, has used methods that cause serious long-term damage to the environment,” they write on the ministry’s website.

UWEC Work Group expert Oleksiy Vasyliuk comments: “We should note here that **until 2023 there was no military action in Crimea at all**. And everything that happened in 2023 had no impact on nature, it was high-precision strikes on military infrastructure and equipment illegally placed by the Russians in Crimea.”

Similar “blunders” are found in each successive sentence. For example, Russia’s MFA states that after the closure of the North Crimean Canal, significant areas at the mouth of the Dnieper were flooded.

“This is quite ridiculous, this is the first time someone has come up with this,” says Vasyliuk. “Water was pumped into the canal and **the Dnieper valley was ‘flooded’ only once – after the terrorist attack on the Kakhovka hydropower station**,” he explains.

The following paragraph gives the impression that the authors of the text have never seen a map of Ukraine:

“In the next eight years of Kiev’s military actions against breakaway Donetsk and Luhansk, colossal damage was caused to the ecosystems and biodiversity of a number of national parks, in particular the Askania-Nova Biosphere Reserve,” the MFA wrote in its statement.

It appears they didn’t consider that Askania-Nova is several hundred kilometers distant from the Luhansk and Donetsk regions. The biosphere reserve only began to be occupied in 2022, which means it could not have suffered “in the course of eight years of war,” the Russian MFA reported.

Most of the MFA’s report is devoted to the Kakhovka hydropower station. However, there is a serious mistake there too. The authors make the claim that rapid flooding caused by the blowing



up of the dam led to the inundation of the Velykyi Luh National Park. In fact, Velykyi Luh is located much further upstream of the Kakhovka plant.

“It was emptied rather than flooded,” says Vasyliuk.

Read more about the restoration of Velykyi Luh after the destruction of the Kakhovka dam in our article:

- [Is it time to restore Velykyi Luh?](#)

No need for facts, since ‘everything is clear to everyone’

In this September “report,” the Russian Federation again recalled the events of 2014, mentioning “eight years of war” in the Luhansk and Donetsk regions. Without bothering to provide facts, situational analysis, or even links to the media, the MFA wrote about “large-scale pollution of water bodies, soil, and air with dangerous chemicals” in eastern Ukraine.

“The document, although it states that ‘the environmental crimes of the armed forces of Ukraine are well documented,’ does not provide any reference to specific information sources,” says Eugene Simonov. “This deprives the text of any credibility for the audience – the content cannot be verified. In general, this is a well-known and typical example of common propaganda tactics...”

In the majority of cases, **the authors simply don’t bother themselves with**

description, quantitative, or qualitative evaluation of the environmental consequences.

Simonov also draws attention to the fact that the statement about “the mass use of outdated naval mines by Ukraine, which has caused the pollution of the vast Black Sea with hazardous substances” is unfounded. The Russian “report” specifies neither hazardous substances, nor their concentrations in sea waters, nor exactly how obsolete mines pollute vast areas of water. Previous [detailed analyses](#) of the harm caused by Soviet mines deployed by Ukraine to protect its coastline made no mention of the “pollution of vast water areas.” Indeed, this is highly improbable, even if all 5,000 mines laid by Ukraine were to explode at the same time. This would be an utterly insignificant outcome in the Black Sea when compared to [other pollutants](#).

Main dish on the table of Russia’s accusations: Destruction of the Kakhovka dam

The Russian Ministry of Foreign Affairs paid significant attention to the largest environmental disaster to have occurred in Ukraine since the Russian invasion in 2022: bombing of the Kakhovka hydropower station dam. The MFA, of course, accuses Ukraine of this in its publication.

Oleksiy Vasyliuk sees this as a particularly interesting feature of



Russian polemics. In his view, the fact that the aggressor is devoting attention to the subject betrays a certain concern.

“It is interesting that the document also states that ‘the final blow’ to the Kakhovka HPP ‘was dealt by blowing up the Kakhovka HPP’s foundational structures on 6 June 2023.’ Engineers and military experts alike are unanimous in their conclusion that such an “explosion” could only have been carried out within the dam, an area to which access was completely controlled by Russian troops. Therefore, the **MFA’s thesis that the Ukrainian side is culpable in blowing up the dam is unconvincing and is completely unsupported,**” says Simonov.

Turning the evidence inside out

As Simonov points out, 50% of the document consists of recognizable facts about the destruction caused by the war that may already be familiar to readers.

“The reason for this is that **the facts are mainly borrowed (without mentioning the authors) from authoritative Ukrainian and international sources** that analyze and systematize information about the consequences of the war unleashed by Russia against Ukraine. Only here each paragraph ends with the refrain that this is evidence of Kyiv’s environmental crimes,” he says.

For example, **the number of settlements flooded as a result of the**

destruction of the dam is taken from a [statement](#) made by Ukrainian President Volodymyr Zelensky in the wake of the disaster. He mentions flooding of four dozen settlements, while [other figures](#) in the media point to up to 80 settlements.

The Russian Ministry of Foreign Affairs obtained information about the size of the flooded areas from a report by a Ukrainian public organization.

“Researchers compiling information do not always understand the meaning of the evidence they cite. Hence, for example, the ridiculous statement that after the breaching of the Kakhovka hydropower station, ‘more than 280,000 hectares were in the flood zone.’ My guess is that this is a distorted quote from the Ukrainian Nature Conservation Group’s estimates of the area where changes to the water regime occurred as a result of the destruction of the dam: 210,000 hectares of the reservoir were drained and 70,000 hectares of downstream areas were flooded. But the Russian accusers did not take the time to figure out that these were two opposite processes, instead attributing everything to “flooding” in order to equate it with an ‘area the size of Luxembourg’,” notes Simonov.

“The claim that Ukraine has been using weapons with depleted uranium can also be placed in the same basket of golden quotes from the Ministry of Foreign Affairs. The text says that this ‘led to dire long-term consequences for the region’.”



“The Russians themselves are [using](#) depleted uranium munitions to full effect, while they basically give off no more radiation than the steps of a granite staircase”, says Vasyliuk. Since American shells have only just begun to be delivered to the region, then from the context it follows that it was Russian access and use of munitions armed with [Svinets-2](#) depleted uranium that led to “dire long-term consequences for the region.”

Quotes taken out of context

Some of the quotes used in the report are incomplete, distorting the meaning of what was said. For example, back in December 2022, Major General Andriy Kovalchuk, who led the counteroffensive, [told](#) The Washington Post about plans by the Ukrainian armed forces to raise the water level in the Dnieper in order to flood Russian river crossing areas. This could have been done by making a hole in the dam, and although tests showed that this would work, the idea was abandoned in order to avoid disastrous consequences. The exact wording of the Washington Post article was as follows:

“Kovalchuk considered flooding the river. The Ukrainians, he said, even conducted a test strike with a HIMARS launcher on one of the floodgates at the Nova Kakhovka dam, making three holes in the metal to see if the Dnieper’s water could be raised enough to stymie Russian crossings but not flood nearby villages.

The test was a success, Kovalchuk said, but the step remained a last resort. He held off.”

Despite the fact that the text was published on the website of a supposedly highly responsible government agency with a duty to supply an international audience with well-balanced and analyzed facts, those who prepared the “report” simply truncated the above quote, presenting it in this way, as if it were a fact confirming Ukraine’s intentions to blow up the dam.

Why shifting the blame won’t work

Obviously, responsibility for environmental damage resulting from military actions lies primarily with those who started the war and seized foreign territories, says Simonov.

“Otherwise, it would be necessary to strictly hold Ukraine accountable for polluting and littering the sea by sinking the cruiser Moskva or for damage to the natural plant communities on Snake Island during the operation to rid the island of occupying forces. In both cases, there was very real environmental damage and it was inflicted at the hands of the Ukrainian military as a last resort in the fight against the aggressor. But for some reason, the Russian side coyly avoids these “Ukrainian environmental crimes” in its propaganda document,” the expert notes.



A new weapon in Russia's information war

Disinformation, an example of which is discussed in this article, is in itself nothing new for Russian war propaganda. The aggressor country has been shifting the blame for actions committed by Russian invaders in Ukraine since the very beginning of the war in 2014 and stepped up its efforts significantly after the start of the full-scale invasion.

Russia has previously [accused](#) Ukrainian armed forces of the bombardment of the drama theater in Mariupol (destroyed by Russian aerial bombs), and in [Saltivka district in Kharkiv](#) (where the occupiers shelled a residential area during the storming of Kharkiv), and of many other Russian attacks. The accusation published on the MFA's website is therefore noteworthy: it is not about shifting responsibility for Russia's own crimes, but something completely different.

The very fact that the document was published not by the relevant environmental ministry, but by the Ministry of Foreign Affairs, suggests that **Russian propaganda will soon feature a new "environmental" agenda, one which the aggressor country will not hesitate to pursue.**

Instead of publishing baseless statements, however, Ukraine is now gathering information on Russia's environmental crimes. The Ukrainian

Prosecutor General's Office has already [recorded](#) 265 war crimes committed by the Russian army against the environment and 14 cases of ecocide. That agency's dedicated subdivision, the Specialized Environmental Prosecutor's Office, is engaged in the investigation and documentation of environmental crimes.

How should Ukraine respond?

To learn how Ukraine will respond to this new point on the Russian Foreign Ministry's environmental agenda (including the use of statements unsupported by facts) **we consulted the relevant Ministry of Ecology and Natural Resources Protection of Ukraine (MENRPU)**, which is also taking part in the documentation of environmental crimes.

That ministry cited a figure that differed from the data supplied by the Prosecutor General's Office: "The state Environmental Inspectorate of Ukraine has recorded over 2,705 events caused by the war that have inflicted damage upon the environment. The total cost of the damage for soil pollution and land contamination is 1,007 billion hryvnia, 1,080 billion hryvnia in air pollution, and 73 billion hryvnia of damage caused to water bodies," reported the MENRPU.

The MENRPU also stated directly that work has already begun on recording the Russian armed force's environmental



crimes in Ukraine, a process involving numerous government agencies and specialists.

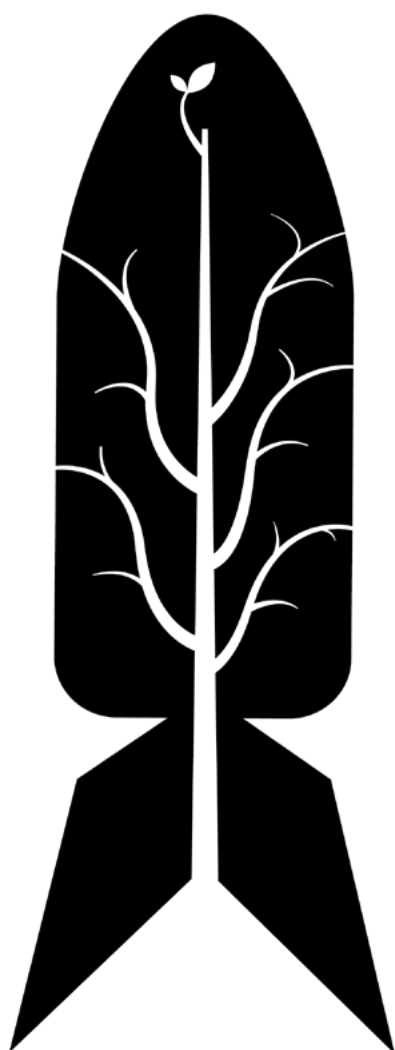
“More than 170 Ukrainian prosecutors from four regions and specialist departments, as well as over 250 investigators from the National Police and security services were involved in gathering evidence,” reads the official response.

Meanwhile, it is completely unclear which Russian agency is recording “environmental crimes by Ukraine” and how this is being done.

As for those who may suggest that shelling has been carried out by “both sides,” the Ukrainian ministry’s response is also unequivocal:

“The aggressor bears full responsibility for the illegal, unjustified, and unprovoked military invasion of Ukraine, which has also seriously endangered global environmental security. It must also carry responsibility for all the damage it has caused to the environment and make reparations.” •

Main image source: [Kyiv Post](#)



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