Russia's war on Ukraine: High environmental toll

The environmental impact of Russia's war on Ukraine has been rapidly growing with every month of full-fledged invasion. The destruction of the Kakhovka Dam further increased the harm inflicted on nature, while bringing international attention to the environmental dimension of the war. Together with its international partners, Ukraine is now looking into the legal options to hold Russia accountable for the environmental damage it has caused, which many refer to as ‘ecocide’. However, the potential legal pathways are all but straightforward.

Estimating the impact of the war on the environment

Since the 2014 hostilities and especially since Russia began its full-scale invasion of Ukraine on 24 February 2022, the war has not only caused thousands of casualties, a refugee crisis and an economic shock but it has also been highly detrimental to the environment. Thousands of instances of air, water, land and soil pollution, as well as damage to ecosystems, have been identified, including hazards to neighbouring countries. The war has also had a negative impact on Ukraine’s rich biodiversity. Forest fires and acts of deforestation, explosions, the building of fortifications, and the poisoning of the soil and water all impact wildlife and destroy natural habitats, including those protected in the biosphere reserves and national parks, many of which are also a part of the pan-European Emerald Network.

According to the preliminary monitoring of the United Nations Environment Programme (UNEP), which, at the request of the Ukrainian government, has been assessing the environmental impacts of the war, Ukraine faces ‘a compounded, multi-dimensional environmental crisis that has either exacerbated existing issues or added new ones’. UNEP stresses the presence of ‘multiple crises associated with chemicals, munitions and military equipment, the presence of a range of pollutants ... damage inflicted to fuel storage facilities, industrial infrastructure, key infrastructure such as water, energy and waste management systems, urban areas, agricultural and natural areas’. It concludes that ‘the country and the region risk being burdened with a toxic legacy long after the conflict ends’.

The war has compromised Ukraine’s agricultural production, which is vital for the country’s economy and global food security. Three major types of damage – physical degradation, widespread chemical pollution from mines and affected industries, as well as exploded ammunition – have severely impacted millions of hectares of Ukrainian farmland. In particular, as the International Committee of the Red Cross (ICRC) notes, contamination caused by weapons poses a long-term problem, addressing which requires significant resources, takes a long time and involves risk. Before this happens though, a significant part of arable land would be unusable for years.

Attack on the Kakhovka Dam

The destruction by Russian forces, as suggested by evidence, of Ukraine's largest dam – Kakhovka – on 6 June 2022, will have long-term environmental and health impacts. Many, including the EU and its institutions, condemned the destruction, qualifying it as ecocide and the worst environmental disaster in Europe since Chernobyl. The event resulted in a catastrophic flooding submerging thousands of hectares of land, claiming dozens of human lives and displacing thousands, and prevented normal access to drinking water and irrigation systems. Many pets, farm animals and wildlife perished in the flood, and numerous, often protected, natural habitats were destroyed. Some 150 tonnes of toxic industrial lubricants were

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1 Conversion rate used: 1 EUR = 39.48576 UAH (average exchange rate for June 2023, source: InforEuro). The values are rounded.
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Holding Russia accountable for the environmental damage

Ukraine has stated its determination to make Russia pay reparations, including for environmental damage. Together with its international partners, it has been exploring ways to ensure that Russia is held accountable. While ecocide has been on the Ukrainian Criminal Code list of crimes since 2001, many argue that the case should be brought at international level to ensure an adequate level of accountability and compensation. However, none of the avenues for reparations is without challenges. The task of collecting evidence and quantifying damage is problematic, especially amidst the ongoing war. In parallel, while there could be some possible legal procedures to obtain compensation for the environmental harm caused, as outlined by the International Court of Justice (ICJ), the UN Compensation Commission and others, the process is complicated and all but straightforward, with very few existing precedents of such reparations (e.g., Iraq's reparations to Kuwait). As for accountability for the destruction of the Kakhovka Dam, in addition to the general rules governing the conduct of hostilities, three special provisions are codified in Articles 54 (objects indispensable to survival), 35 and 55 (natural environment), and 56 (dams) of Protocol I Additional to the Geneva Conventions, to which both Ukraine and Russia are parties. According to several experts, even if the dam's destruction was not deliberate, any neglect that led to its destruction would likely be a breach of Russia's positive duty to ensure the protection of civilian infrastructure. If the destruction was deliberate, it would likely qualify as an act of indiscriminate violence against the civilian population and a violation of international law prohibiting intentional and wilful destruction of the natural environment.

Position of the European Parliament

On 19 January 2023, the Parliament adopted a resolution on the establishment of a tribunal on the crime of aggression against Ukraine (2022/3017(RSP)), which recognises the link between war and long-term damage to the natural environment and climate, and supports the UN General Assembly's recommendation on the creation of an international register of damage 'to serve as a record for future reparations for... widespread and severe damage to the natural environment and the climate'. Its resolution (2023/2739(RSP)) of 15 June 2023 on the sustainable reconstruction and integration of Ukraine into the Euro-Atlantic community condemned 'the destruction by Russia of the Kakhovka dam', underlining that it caused ecocide and constitutes a war crime. Parliament also welcomed the activation of the EU civil protection mechanism and voiced support for the ICC investigation into the destruction of the dam.

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