

THE RUSSIAN INVASION OF UKRAINE IS CAUSING AN ENVIRONMENTAL CRISIS, AND EXPERTS SAY IT COULD TAKE YEARS TO FULLY REALIZE THE IMPACT

More than 1,000 people and organizations from 75 countries issued an open letter through the Environmental Peacebuilding Association on March 3 to express their solidarity with Ukraine as it faces attacks from Russia—and their concern over the environmental and humanitarian toll of the war.

The letter states that attacks on civilian and military sites were causing air, ground, and water pollution, especially in such a heavily industrialized country, and that the war threatens the food security of people in Ukraine and other countries that rely on its wheat and corn exports.

"Every conflict has a unique environmental narrative," Doug Weir, the director of research and policy at the Conflict and Environmental Observatory, an organization aimed at increasing awareness of the environmental impact of military activities, told Insider. "For Ukraine, it revolves around the number of technological hazards posed by its large industrial and energy sectors and the increasing intensity of Russia's military actions."

In the short term, environmental emergencies could result from damage or disruption to energy or industrial facilities, he said. But long term, he added, the region could see weakened environmental governance, and the conflict's environmental issues could go unaddressed as the government faces multiple problems.

"Transboundary disputes" over control of resources like water or risk management of hazardous facilities could happen if Russia permanently occupies more areas of Ukraine, Weir said. The environmental impact beyond the two countries could take years to be fully realized.

The country's industrial sectors raise the environmental risk on air and water quality. Ukraine is home to multiple industrial sites. Even before this conflict, the country ranked low on environmental indicators like air quality, biodiversity production, and ecosystem health, according to the Environmental Performance Index. The region of the Donbas in eastern Ukraine has long been considered one of the country's most polluted areas because of its coal mining, metallurgy, and chemical manufacturing facilities.

"War in industrial areas creates extensive risks of toxic contamination, given the concentration of power generating stations, chemical plants, metalworking factories, and the like," Ken Conca, a professor of international relations at the American University School of International Service and the author of the book "Environmental Peacemaking," told Insider. "These structures tend to be full of petroleum products, hazardous chemicals, and combustible compounds that, when liberated into the environment, can do extensive short- and long-term damage," Conca added.

If Ukraine's hydroelectric dams were to rupture, it could cause "disastrous flooding downstream," he said, adding that targeting these facilities should be recognized by the international community as a war crime.

Targeting nuclear sites also poses health and environmental risks. On February 24, Russia took control of Chernobyl, the site of a nuclear-power plant where an explosion in 1986 sent radioactive material into areas nearby. The White House called the taking of Chernobyl "incredibly alarming," as it stirred up radioactive dust and increased the detectable levels of radiation at the site recently. "It would probably take a direct strike on the facility to create more than local radiation risks, but there's a danger that the ongoing monitoring of the area by Ukrainian scientists, which is still required 35 years after the Chernobyl disaster, will be disrupted for an extended period," Conca said.

The risk of nuclear contamination extends beyond Chernobyl, he added. Ukraine operates more than a dozen nuclear reactors, and several reports have detailed Russian strikes near nuclear-waste facilities, which increases the risk for contamination and health problems.

"Many of the problems we're seeing pose either acute or chronic health risks to people, and people have a human right to a healthy environment," Weir said, adding that it could also hinder contamination, disaster, and environmental recovery efforts.

The war could detract from future climate policy initiatives. The environmental crisis in Ukraine could also affect future climate policy. "We're already living through a low point in terms of momentum for global environmental cooperation," Conca said. "The war distracts attention and diverts resources of governments worldwide at a time when we can ill afford it."

Last week, the United Nations Intergovernmental Panel on Climate Change released a report saying that climate breakdown is occurring faster than previously thought and parts of the world will become uninhabitable in the next few decades if action isn't taken now.

Though understandable, Weir said the report's release was overshadowed by news of the Ukraine conflict, which "demonstrates how our future increasingly depends on global cooperation and how widely the political shocks of conflicts can spread, excluding other important issues."

The scale, intensity, and length of the conflict are still unknown, and so is the scope of the environmental crisis.

"Even if the physical, biological, and chemical damage remains confined to Ukraine, the social and political effects will reverberate far beyond," Conca said.

I. Choose the correct alternative.

- 1) What is causing the attacks on civilian and military sites?
 - a) human health issues
 - b) air pollution
 - c) biodiversity loss
 - d) nuclear contamination
- 2) Why is it mentioned that "every conflict has a unique environmental narrative"?
 - a) Transboundary disputes
 - b) environmental emergencies
 - c) disastrous flooding downstream
 - d) increasing intensity of Russia's military actions
- 3) According to the Environmental Performance Index, what is the country of industrial sectors?
 - a) The United States
 - b) France
 - c) Japan
 - d) Ukraine
- 4) What risks can a nuclear power plant bring?
 - a) do not generate gas emissions
 - b) create a nuclear medicine
 - c) create nuclear waste dangerous for health and the environment
 - d) create technological advances
- 5) United Nations Intergovernmental Panel on Climate Change indicated that the climate breakdown is...
 - a) coming next year
 - b) coming in two years
 - c) coming in five years
 - d) coming in the next few decades

II. Choose the FIVE TRUE STATEMENTS, and write the letter in the box.

A. Doug Weir mentioned that every conflict has a unique environmental narrative.	
B. The region of Lugansk has long been considered one of the country's most polluted areas.	
C. Vehicle emissions could cause "disastrous flooding downstream."	
D. The White House called the taking of Chernobyl "incredibly alarming".	
E. The nuclear reactors increase the risk for contamination and health problems.	
F. The environmental crisis won't affect future climate policy.	
G. The scale, intensity, and length of the conflict are still unknown.	
H. Physical, biological, and chemical damage remains confined to Ukraine.	