



Season 2 Episode 2 - Conflict, Climate, and the Environment, Part I: Ukraine *Episode Transcript*

Annie: This podcast contains content that may be alarming to some listeners. Listener discretion is advised.

Yevheniia: Even if the war would stop now, or even if the war would stop like a few months, uh, before, uh, it means that from environmental perspective, um, the harm that Russia brought is huge, uh, from all that pollution that actually they brought to us, it, it'll mean that it'll affect us like in years, uh, after the war would stop.

Teaser Clip: Every day 100 civilians are killed in conflict and countless more are harmed, yet their perspectives are often missing from the stories we tell about war. This is the Civilian Protection Podcast. A monthly podcast produced by CIVIC and PAX.

[Theme Music Plays]

Marc: Hey everyone, this is Marc Garlasco, Military Advisor from PAX.

Annie: And I'm Annie Shiel, Senior Advisor for the United States at Center for Civilians in Conflict, or CIVIC. Our organizations work in conflicts around the world to protect civilians caught in war.

Marc: And in today's episode, we're returning to a conflict that we covered in season 1: the war in Ukraine.

Annie: At the time, the war had been underway for a month and its toll on civilians was already devastating. We spoke about civilian casualties, the staggering numbers of refugees and internally displaced people, about besieged communities that had lost access to essential services, and the overall sense of despair. And what we heard from my CIVIC colleagues working on Ukraine is that it seemed as if civilians, and the resources they relied on, were being targeted intentionally.

Clip from Season 1 Episode 6 (Beatrice): As the conflict escalated, the reports of attacks by Russian forces that appeared to be directed at civilian areas multiplied and, the types of incidents that, we, uh, collected reports and, um, ranged from attacks on civilians themselves, attacks on residential areas, attacks on hospitals, maternities, on pediatric houses, psychological clinics, but also attacks on civilian infrastructure that has power plants, dangerous sites, which has nuclear plants.

Marc: Now, it's been over 8 months of fighting since Russia invaded Ukraine – and there's been no end to civilian suffering. The United Nations has recorded over 6,000 civilian deaths, among which more than 400 are children, as well as close to 10,000 injured, while acknowledging that the actual numbers are likely considerably higher because UN is in the process of corroborating further reports and does not have access to information from all areas. Additionally, many cities and towns have been destroyed and it's estimated that over 7.5 million Ukrainians have taken the difficult decision to leave everything they know behind and flee their country.

Annie: Today's episode focuses on yet another aspect of harm from the conflict – and that's the damage this war is causing to the environment, and the short- and long-term costs of looming environmental disaster for civilians.

Marc: As it so happens, the UN declared 6 November – so, yesterday – the International Day for Preventing the Exploitation of the Environment in War and Armed Conflict. And this isn't without

reason: the UN called this day into existence because it saw a need to call attention to the fact that the environment often suffers greatly from armed conflict, that this comes with real human costs, and that action on the environment will have to be a necessary part of any effort at conflict prevention, peacekeeping, or peacebuilding. Because, and I am quoting the UN here, "there can be no durable peace if the natural resources that sustain livelihoods and ecosystems are destroyed."

Annie: Both our organizations have done work exploring the links between conflict, climate, and the environment. We know that climate change and environmental degradation can be both drivers of conflict, as well as consequences of conflict - consequences that have serious long-term repercussions for civilians and the resources that they need to survive.

Marc: This episode, part one of our exploration of this topic, will focus on the latter, by exploring how the Russian invasion of Ukraine, and the ongoing war, is impacting the natural environment, both now and in the future, and what that will mean for the people in Ukraine.

To better understand this issue, my colleague Erin, a civilian harm researcher and part our podcast production team, spoke to Yevheniia Zasiadko, a civil society activist in Ukraine who works on climate.

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Yevheniia: My name is Yevheniia Zasiadko, I'm the head of climate department in a civil society organization in Ukraine. It's called Center for Environmental Initiatives Ecoaction, shortly Ecoaction. We're based in Kiev, and been established in 2017. And before the war, we've been focused on climate change, it was our umbrella topic. Since February, we understood that actually, um, so when the war is actually started, we started to adapt. We also had a few new topics as, uh, impact to the environment of the war, and we never worked with this topic before. And also my colleague who worked with agriculture, they also focus now on food security. And we started to work on sanctions.

Erin: It's been eight to nine months of fighting since Russia invaded. How has that affected the environment in Ukraine?

Yevheniia: The problem now, because, uh, the war is still going, it's impossible to actually understand the whole volume of impact to the environment. Plus, some territory is still occupied: It's like Luhansk, Donetsk, Kherson region, Zaporizhzhia, and we don't have even access to the territory. So we can only monitor the open resources, media, regional, national, what is happening in different regions and trying to at least have this list of what kind of cases that can impact directly environment. And so far now we have more than 600 cases that potentially can bring harm to, to the environment. And it's like all around Ukraine, but of course the east and the south, it's the biggest numbers, because first of all, it's, um, east is the industrial part of the Ukraine. So we had a lot of industry plants, coal mines there, and Russia is targeting them. I don't think that they are actually trying to bring the harm to the environment in Ukraine, but actually it's, but it's still happening and it means that it'll like impact us, now and in the future.

Erin: What kind of impact are we talking about? What kind of tactics are affecting the environment and in what kind of ways?

Yevheniia: So for example, we are monitoring the impact to marine ecosystem, impact to the ecosystem, to the industry, to the energy system. Mostly now by numbers, the industry been destroyed most, and we had, for example, cases in some region when chemical, um, Sumykhimprom, it's chemical plant, been, uh, destroyed and, acid nitrogen been leaked from that, so the village, which has been closed, has been affected. It was in March. And we also have a numbers of coal mines flooded, from February, like there has been at least five coal mines have been flooded because Russia targeted the energy system, so it means that the, um, pipelines which has taken water, from underground water doesn't work, so it means it flooded. So, there's a lot of different cases, the same with ecosystem. For example, in south of Ukraine, we have a lot of nature protected zone and our colleague from NGO nature conservative group actually calculated that around 40% of nature protected zone from 2014 been occupied or affected by Russian actions, so it includes Crimea and Donbass. So it's 40%. It's a huge number, even though like, we don't, we have, for example, less number of protected zone in Ukraine than European countries. So it's, it's huge. And now like, around 20%, the numbers from the ministry around 20% of Ukraine protected zone under like bombing and,

have a huge impact. So from this part, there would be also a huge negative impact, to, to the ecosystem, to, yeah, human health and so on. So yeah, there's a lot of ways how they can actually target us via environment: it's air pollution, soil pollution, and the ground pollution.

Annie: Clearly, the war is degrading the environment in Ukraine in some really serious ways. You know, Yevheniia talked about militaries fighting in natural areas, and resulting pollution of soil, water and air. And on the other hand, it seems hard to focus on these impacts when the immediate human toll of the war in Ukraine is so devastating. But environmental degradation will have a human toll too, so, what do we know so far about the impact of all this on Ukrainian civilians? How will they be affected by damage to the environment?

Marc: Yeah that's exactly right, Annie. To get a better sense of the impact to civilians, Erin also spoke to a colleague of ours at PAX, Iryna Nikolaieva. She's an expert on environmental safety and she's based in Ukraine, where she monitors the impact of the war on the environment. And she's offered several detailed examples of environmental harm, and those consequences for the civilian population.

Iryna: The impact on the environment, let's say the environmental damage from military action is huge across the whole country. Ukrainian land is mined. This territory of about 200,000 square kilometers needs demining. Today, Ukraine is one of the most mined countries in the world.

Marc: What Iryna is talking about here is that parts of Ukraine - because of the war - are now covered in landmines.

Iryna: Mined lands has a long-term influence on ordinary people's life. Um, for example, my friends from Kiev Oblast cannot go in deep, uh, green areas where they used to pick mushrooms, um, or berries, um, and it was a daily way of life. Families who are engaged in agricultural businesses are also at risk when cultivating land in the areas where the fighting took place. Um, let's say only in October there are reports of these from detonation of mines, farmers, road workers, emergency medical personnel, and repairment of communication system energy objects in different parts of the country. So I would say that mines are like an invisible enemy of Ukrainians now and prevent us to use our land.

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Marc: Just how long term of a problem mines are becomes clear when we consider that in countries like Cambodia and Laos, mines that were laid in conflicts that took place all the way back in the 60s and 70s are still killing and maiming people – many of them children – *to this day*. That war has been over for decades, but there are still parts of the country that are dangerous or inaccessible. And in talking about mines, we're only considering one aspect of war. This is Iryna again on the current situation in Ukraine, and the impact of other degradation, like loss of clean water.

Iryna: The conflict related debris are a significant burden on the environment. Thousands of destroyed buildings, cars, uh, public transport, remains of military equipment and shells, are occupying a huge area of our lands. All these need proper storage with fuse disposal, safe disposal, because these debris contain substances toxic to the environment and human lives, such as asbestos and heavy metals, which during the storage on the sky seeps through the soil cover into the groundwater.

And also I would like to say about water quality and the problem of the quality of water bodies, um, has become urgent, because there are attacks on the infrastructure of intake, purification, and supply of water, as well as sewage treatment, facilities, water supply and [inaudible] facilities in cities been damaged. There is a problem of clogging these remains of military equipment, pollution from fuel explosives, and so on. Therefore, a system services of water, forest, land resources are being lost due to mined territories or areas contaminated with explosive remains of war. All these leads to the losses of biodiversity and ecosystems of Ukraine.

Marc: Iryna also mentioned attacks on Ukraine's energy infrastructure as particularly concerning for civilians.

Iryna: The cut of power supply in populated areas creates a humanitarian crisis when people don't have access to basic life supporting services like, uh, clean drinking water, use of sewage service,

heating system, and, uh, storage for food in the refrigeration unit. As well as there is no access to information and to service of public electric transport. One example is about water quality. The main facility of the water treatment complex is a so-called air tank, intended for artificial biological treatment of wastewater using activated sludge and aeration. Use of power supply and is turned off, the air supply is stopped, leading to the death of these microorganisms and the sewage treatment process just does not take place, increasing public health risk related to unsafe water. And here we are talking about water-borne diseases and even about epidemic situations.

Erin: Are we already seeing the outbreak of diseases or is that a worry for like, something that will happen in maybe the weeks or months to come?

Iryna: We see epidemic situation in the Mariupol city. It is mostly related to the occupied territory where they don't have access to the clean water, or even no water at all. And the most vulnerable group of people is children under 15.

Marc: Much of the degradation and resulting impacts on civilians that we see are by no means inevitable. Iryna described how they're a product of the ways in which the war is being fought.

Erin: Are there other parts of the Russian military strategy or the way that the conflict is being fought that are excessively harmful to the environment?

Iryna: The most destructive incidents damaging the environment are happening due to the use of explosive weapons. These weapons cause fires, destroy forests, contaminate fertile soil, pollute water bodies, and damage civilian infrastructure.

The explosive weapons used in populated areas is associated with many environmental risks, such as high amounts of often contaminated rubble. And what is more important, the disruption of life supporting services, which in turn create humanitarian crises. Bringing some numbers, um, just during October 10 to October 20, I mean, yeah, just in 10 days, Russia launched 154 cruise missiles and 176 drones at Ukraine, most of them were directed to energy infrastructure.

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Marc: And this is just the damage and environmental and civilian harm that we already see happening in Ukraine. But the war continues, and people like Iryna and Yevheniia are watching with apprehension as even darker scenarios seem more and more likely to happen. There are big concerns about Russia damaging and targeting the Zaporizhzhia nuclear power plant, and resulting potential nuclear pollution.

[BBC News Clip:](#) The Russian-occupied Zaporizhzhia nuclear plant in Ukraine has been increasing worries of an accident there. Families living close to Europe's largest nuclear facility say they're living in fear.

Marc: Here's Yevheniia again.

Yevheniia: Another impact which is now not visible and didn't happen is uh, nuclear pollution: Russia still occupied Zaporizhzhia nuclear power plant station. In Zaporizhzhia it's like almost every week we had the news that uh, they bombing, they doing, even though they occupy that part somehow, like Ukrainian military are not there, so they still target it. So it means that nuclear pollution can happen like at any moment and it will affect, uh, like a huge territory. There is experts saying if Zaporizhzhia power plant station will explode, uh, it means like second Chernobyl is happening with the difference that Zaporizhzhia is very close to the Black Sea, so it will also affect a lot um these countries which is close, plus like it could go to Europe or it could go to Russia. It depends like where the wind would go. Uh, so, uh, this another aspect which is like didn't happen, but actually it can bring like a huge harm to, at least to the European continent.

I don't know how, how, how this issue should be solved because like from Ukrainian side, we can't go there and like we can't target such, uh, facilities because it's just dangerous. So yeah, I don't know how we are going to solve this problem. And plus, like, Kherson is now also occupied and it's not far from the South Ukrainian nuclear power plant station, and actually the Rivne nuclear power plant

station is very close to the Belarusian border, where is also a lot of Russian troops. So yeah, we don't know how this situation can go and how it will end.

Marc: In warning about the potential impact of damage to Zaporizhzhia, Yevheniia addresses an important point: damage to the environment and the resulting impact doesn't respect state borders. What happens in Ukraine, doesn't stay in Ukraine, so to speak. In fact, this is a point she would bring up throughout her interview.

Yevheniia: With the flood of coal mines, it means that actually it's not affecting only Ukrainian side, only Ukraine, but um, ground water don't have borders, so it means that the ground water actually went also to the Russia because it's very close and [inaudible] with the border. So actually the Russian people also been affected from, uh, from affected territory on Donbass or it's also have effect on them. And what does it mean the flooded mines? It means that there could be some radiation raised and some chemicals can be also, like, numbers can be like raised a few times more than it should be.

Erin: Do you see other examples or do you have other concerns for, uh, the fighting in Ukraine having impact beyond the borders of Ukraine itself?

Yevheniia: Another aspect is also marine ecosystem because, uh, Black Sea and Azov Sea we are connected with a lot of many countries like Georgia, Turkey, Romania, Bulgaria, and uh, because of Russian actions, um, there even been some information, but that's in Romania, if I'm right, they also saw that dolphins, which has been affected from all the mines that Russia left in the Black Sea. And the huge effect from, for example that the reconstruction of the Crimean bridge, that Russia established like a few years ago, it's actually already affected the marine ecosystem. And a lot of science told that Russia should not build the bridge because like it would affect a lot, yeah, negatively the ecosystem. But of course nobody listens. So now when it's, yeah, targeted even though it's from the military side is probably good because Russia using that bridge to bring like a military support to attack Kherson, uh, but from environment impact it's actually would be have a huge effect.

Marc: In talking about the Crimean bridge and it being targeted, Yevheniia is referring to an explosion that occurred on 8 October, which destroyed the bridge that connects Crimea - an area annexed by Russia in 2014 - with Russia's rail and road network. It was used by Russia as a key supply route during the war. So, while Yevheniia acknowledges that the bridge's destruction provides Ukraine with a key military advantage, she also mentions how the explosion is causing further negative effects to the marine ecosystem there.

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Marc: What is heartbreaking is that the impact of this war will leave a mark on Ukraine and the Ukrainian population for years to come.

Yevheniia: What we are saying now and why we are trying to bring attention to this topic, uh, because even if the war would stop now, or even if the war would stop like a few months, uh, before, it means that from environmental perspective, um, the harm that Russia brought is huge, uh, from all that pollution that actually they brought to us, it, it will mean that it'll affect us like in years, uh, after the war would stop. There is some examples that in France after the Second World War, the soil is still polluted, still polluted in 2022. So, what Russia is doing now, it means like, in some cases, maybe in 50 or 60-70 years, we would not recover, and that means that it'll impact us.

Iryna: One year of the war uh, takes 10 years of demining. Nobody can just say you how long it'll take to recover, to restore it, to rebuild the country after the armed conflict. It depends on how Ukrainians are ready to take their responsibility, how, how international partners are ready to support Ukraine. And we understand that there is a huge damage in environmental area and the need to have a really financial, uh, support, uh, to clean up all these harm for the environment.

[Transition Music Plays]

Marc: Listening to these interviews left me with just an overwhelming sense of sadness at how months of fighting, which is horrible in itself, will have an impact that lasts for years, and even decades.

Annie: And it's not just Ukraine, right? There are many places around the world where civilians are living with the devastating consequences of conflict, from the flattening of cities and homes to the kind of environmental damage that our guests talked about today - damage that has a direct impact on populations' access to the resources that they need to survive and live healthy lives.

You know, just as an example, we might think that the Vietnam war is something of the past, but tens of thousands of people have been killed by leftover landmines and other unexploded ordnance, which also leaves natural land unlivable; the use of Agent Orange and napalm by the US military has left a legacy of pollution, causing birth defects and cancer, and caused massive deforestation and altered the ecosystem in Vietnam; and the widespread use of explosive ammunition caused craters that contribute to soil infertility to this day. It's estimated that, for example, it will take about a century before Vietnam's tropical mangrove forests have recovered from the impact of the war.

Marc: Looking at contemporary conflict, the situation isn't much better. Beyond Ukraine, colleagues at PAX are monitoring environmental damage as a result of armed conflict in Iraq and Syria. But we also see environmental degradation as a result of fighting in Gaza, and in Yemen. And the list goes on. We may not even know the true impact for years to come.

Questions have also been raised about the role of the war industry itself in contributing to climate change, even in peacetime. Few people may be aware that the US Department of Defense is the biggest consumer of oil worldwide, resulting in carbon dioxide emissions that are comparable to that of a country like the size of Denmark. When we turn to the UK, the carbon dioxide emissions from its military activities make up almost half of that country's total emissions. That is huge.

Annie: For all of these reasons, former UN Secretary-General Ban Ki-moon once called the environment a "silent casualty of war and armed conflict."

Marc: And, you know, fortunately for us, there are people like Yevheniia and Iryna and many other climate researchers and activists who refuse to let the environment be a silent casualty any longer by bringing the impact of war to our attention again and again.

But before we wrap the episode, here's back to Iryna on what she is aiming for with her work and what gives her purpose.

Iryna: If you talk in general about the results that I hope to achieve? It's primarily to convey people quality information, with verified data through the preparation of thematic reports, reports and participation, to distribute this information in relevant working groups. We are currently finalizing a report on energy infrastructure damage that will be published shortly. Also, I believe that a database of verified incidents from military actions can be used for future purpose to hold Russia accountable in means of environmental damage. It gives me a sense in my work.

Erin: If I may interrupt, Iryna, what would accountability of Russia look like ideally?

Iryna: I think that we need to create, I mean, Ukrainians with international support, create some mechanisms, uh, how to get from Russia a compensation for environmental damage and reparations for crimes against environment that cause ecocide.

The term ecocide is applied to a variety of environmental harms, including from military actions. And there is a new ecocide definition developed by an independent expert panel convened by the top ecocide foundation. And here we can support the hope that the new definition presents a workable crime, comparable being adopted into the mandate of the International Criminal Court in the Rome Statute. A new crime of ecocide is an expansion of international accountability for environmental harm, including the ongoing situation with Zaporizhzhia nuclear power plant. The shelling of the nuclear plants is absolutely under the term of ecocide. And the proposed crime extends the possibility of prosecution for environmental damage in the context of the war for harm such as water pollution

through oil spills, losses of biodiversity as we said, and ecosystems, land and soil contamination and air pollution.

Marc: So, essentially, Iryna is proposing that ecocide in the form of massive harm to the environment from military operations becomes a crime, something that armed actors or governments could be prosecuted for, held accountable for. That would be a big step in showing how seriously we take the protection of the environment.

Yevheniia also talked about the future and what changes she would like to see and she challenged us to rethink our industries and dependence on fossil fuels more broadly, because there is a clear link there to war and conflict.

Yevheniia: The third part of Russian budget is coming from the fossil fuel and actually now the fossil fuel has also brought war to our country, like, because Russia's financing it. So, it's almost the same amount that the EU, for example, paid for the fossil fuels to Russia, it's almost the same amount Russia needs per day for the army support, military support. So actually even like, individual civil society in Europe and internationally reduce the consumption of fossil fuel it depends on Russia, it, it can help a lot. And there's a lot of information that actually like, developed countries are using a lot more resources. So it's actually like possible to reduce and do a lot more not to pay to Russia for that. And plus like, because the last five years I worked on climate change and climate policy and like, everybody knows that fossil fuels are bringing climate change. So we see that it's only like bringing harm from the war perspective and from the climate change. So actually we can, can do a lot like by ourselves just to reduce some consumption.

Marc: In fact, addressing dependency on fossil fuels in general could be a driver for peace, not just in Ukraine, but in other areas of the world too.

Yevheniia: There is a lot of information that a lot of dictatorship regimes are dependent on the fossil fuel. So reducing the consumption of fossil fuels that can help to prevent future conflicts and war, not only in Ukraine but in other regions and countries too. So, we need to think and reconsider like how we live our life.

Marc: And here at PAX, we're also working to gather more attention for the links between conflict, the environment, and climate, especially considering the impacts on civilian lives and livelihoods. Although international recognition has grown in recent years, international prevention, mitigation and response efforts have continued to be decentralized, disjointed, and disparate. So, in the United Nations for example, we're advocating for the establishment of a UN system-wide "Environment, Peace and Security" agenda. This can lead to better and more systematic monitoring and data collection about environmental dimensions of armed conflict, which in turn can lead to improved and more sustainable mitigation and response measures. The environment should become part of conflict analysis, humanitarian initiatives, and peacebuilding programs. We further advocate that in talking about the protection of civilians, we also need to talk about the environment because, you know, as we have heard, civilians ultimately pay the price if the environment is harmed. And finally, Ukraine has shown that the UN needs to establish a rapid response mechanism so that we can react quickly in case of urgent environmental risks, like the ones to the Zaporizhzhia nuclear plant.

[Transition Music Plays]

Annie: That's it for this episode on the impact of armed conflict on the environment. We'll explore the reverse – how climate change can be a driver of conflict – in part II, coming soon. But first, we'll return with a broadcast on the unprecedented global political declaration to protect civilians from the use of explosive weapons in populated areas, explaining how this landmark declaration came about and why it is so important for the safety of civilians worldwide.

Marc: The civilian protection podcast is brought to you by Center for Civilians in Conflict and PAX – two NGOs working to improve the lives of civilians caught in conflict. Today's episode was written by Erin Bijl with assistance from Annie Shiel, Marc Garlasco, Selma van Oostwaard, Tate Musinahama and Brittany Roser. It was produced by the Podcast Guru. Hajer Naili and Tate Musinahama made sure we're online. We'd like to thank Yevheniia Zasiadko and Iryna Nikolaieva for joining us as guests.

Annie: You can find us on Spotify or anywhere you get your podcasts. We want to hear from you: share your thoughts on this episode or topics you'd like us to cover by emailing civilianprotectionpod@gmail.com. Follow us on Twitter and Instagram at @ProtectionPod to stay up to date on our episodes and guest speakers, and get behind-the-scenes content, like full interviews. Find those full interviews and upcoming episodes on our websites, civiliansinconflict.org/podcast and protectionofcivilians.org. Thanks for listening.