





VIEWPOINT

The Other Humanitarians: Emergency First Responders and the Problem of Eradication-Level Harm

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International humanitarian law (IHL) provides a framework to protect health workers and health facilities from violent attacks in conflict zones, which are on the rise and well documented. The year 2023 was the deadliest in a decade for health workers, patients, and medical facilities.2 However, if the level of protection is low for facility-based health workers, it is likely even lower for the first responders who respond to attacks on civilians and civilian infrastructure, including residential areas, hospitals, schools, places of worship, cultural monuments, and energy facilities such as nuclear power plants. First responders put their lives at risk to protect vulnerable infrastructure and lived-in environments. Often, the damage done is exaggerated because of the goal of inflicting maximum harm or rendering an environment uninhabitable. In Russia's campaign to destroy a neighboring sovereign democracy, for example, a former prime minister and president of Russia declared that the elimination of Ukraine should be total "so that not even the ashes of it remain." When environmental warfare aims to produce excessive or even eradication-level harm, a familiar distinction between human (or civilian) and natural (or environmental) damage breaks down. In such a context, the challenge of mitigating the environmental cost of warfare is inseparable from protecting human life; both actions can be seen as fulfilling IHL's mandate of limiting the effects of armed conflict and minimizing human suffering. While the civilian focus of IHL is understandable and highlights the life-saving work of humanitarian workers and organizations, it can also mean that the many other kinds of work that sustain human life in conflict zones become less visible.

Campaigns of "making ashes" (of a state, its people, or its energy infrastructure and natural resources) involve violence that is disproportionate and "clearly excessive in relation to the concrete and direct overall military advantage anticipated" and thus unlawful.⁴ Article 2 of the United Nations Genocide Convention, a legal framework distinct from IHL but also concerned with the protection of human life, defines genocide as the production of deadly "conditions of life calculated to bring about [a group's] physical destruction in

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whole or in part." The language suggests a "breadth of exposures" that may be linked with genocide.⁵ The production of such exposures and their long-term effects may compromise a state's obligation to ensure the continuity of health services during and after conflict. Yet on the public health harms that accumulate from such disruptions during and after conflict, "international humanitarian law is silent."

Meanwhile, not only medical but also non-medical first responders protect civilians from infrastructure collapse and the weaponization of their environment. The latter limit cumulative civilian harm by maintaining critical services essential to upholding the right to health and limiting civilian deaths from deliberate attacks on civilian infrastructure, water systems, and power grids. Such work ensures the provision of shelter, potable water through effective water management, and reliable fuel supplies through a functioning energy infrastructure, to name a few. The extent to which large-scale destruction collapses the distinctions between the human and the non-human is captured in the term environcide, or what I call eradication-level harm.7 Both are useful ideas because they point to larger swaths of actors who recognize, respond to, and limit the public health consequences of armed conflict.

A pattern of attacks on first responders of all kinds continues unabated, including Israeli military airstrikes that killed seven members of the World Central Kitchen who were delivering critical food aid in April 2024.8 Russia's missiles and drones have struck shopping malls, apartment buildings, publishing houses, and fuel depots, as well as firefighters rushing to extinguish the flames.9 In such double-tap strikes, an initial attack is followed by a second attack deliberately targeting first responders and civilians, in flagrant violation of the Geneva Conventions' prohibition against targeting civilians, the wounded, or those assisting the initial victims of an attack.10 In 2018, civil defense rescuers (White Helmets), who provide aid to those affected by conflict in Syria, were putting out a fire in a camp caused by a Russian strike when a second missile struck, killing them and a room

full of schoolchildren.¹¹ As the physical and mental health toll of such cruelty mounts, the weapons that are used to carry out the double-tap attacks are becoming more accurate.¹²

In Europe's largest land war since World War II, the double-tap takes on another grim dimension. Ukraine is a highly industrialized country; it is full of industrial infrastructure and home to a large nuclear power program. The head of the International Atomic Energy Agency warned that a "first-ever war fought in the midst of the facilities" of such a program brings the threat of a nuclear accident and a public health disaster "dangerously close." 13 Besieged shift workers and equipment operators at the Russian-occupied Zaporizhzhia Nuclear Power Plant, Europe's largest, describe a brutal "regime of torture and abuse."14 The safety of these workers who keep the plant operating, sometimes under threat of being taken hostage—cannot be overstated.15 In peacetime, they implement safety protocols as a matter of course. Under hostile conditions, such work becomes extraordinary, even heroic.

When civilian infrastructure is turned against civilians, how does a broad category of emergency personnel fare under IHL? Why do some crisis responders and personnel come into focus, while others fade back into the ruinous landscapes of war? Part of the answer lies in IHL's anthropocentric definition of war crimes. That is, IHL focuses on human life (the human casualties) and not, for the most part, on the infrastructures that make life possible but that can be tampered with or destroyed. In cases of "superfluous injury or unnecessary suffering," the focus is typically on crimes against persons—namely, civilian noncombatants. By contrast, the types of war crimes to which first responders and emergency personnel often respond in the broadest sense relate to things, such as lost essential resources, damaged infrastructure, or poisoned natural habitats. Prosecutions for the latter category are rare. Yet mitigating environmental damage requires people with the technical skills to manage fires, explosions, and toxic chemical releases and their potentially catastrophic effects. To reiterate: in the first case, the object of protection is a person (a civilian); in the second case, the

object of protection is a "thing" (a river, a dam, or a nuclear power plant). In the first case, the "we" that protects is clear (e.g., medical personnel). In the second case, even as attacks on civilian infrastructure are banned under IHL, the "we" is less distinct.

Other puzzles stand in the way of recognizing a broader category of first responders. As noted above, civilian infrastructure can be weaponized in other words, turned against civilians for hostile use. But IHL seems to neglect this dynamic, instead "classif[ying] everything that can be the subject of an attack in a binary manner: civilian objects are all objects which are not military objectives." 16 This binary raises the question of how IHL responds when civilian/noncivilian distinctions blur. Are civilian persons privileged over "indistinct" things, like vital infrastructure? Can this privileging also mean that some first responders, such as medical personnel, and the heavy losses they bear are seen, while others are rendered more invisible? The point is not to pit one type of humanitarian against another but rather to underscore the "breadth of exposure" of war, which is focused largely on the immediacy of alleviating human suffering and not necessarily on the long-term public health realities in which suffering is manifested, sometimes over the course of generations.

Last year was another devastating one for health care, and it was the deadliest year in a decade for all conflict-related deaths.¹⁷ Missiles and drones fired with impunity into densely populated residential, urban, and industrial areas, depriving civilians of access to functioning energy and health infrastructure, shelter, and clean air and water.

Today—at a time when conditions essential to civilian life are under siege, the future of aid projects around the globe is at risk, and war itself drives planetary destruction—it is time to recognize the scope of the life-saving work that emergency first responders do.¹⁸

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