







Destroyed vehicles are seen on the shoulder of the Highway of Death, a six lane highway from Kuwait City to the Iraqi city of Basra, in 1991. The road was used by Iraqi armored divisions for the 1990 invasion of Kuwait.



The photo shows the Basra-Kuwait Highway near Kuwait City after the retreat of Iraqi forces during Operation Desert Storm.

Silent victim of Israel's war on Gaza



In March 2024, Forensic Architecture reported that more than 2,000 agricultural sites, including farms and greenhouses, have been destroyed in Gaza since October 2023. Months into Israel's war on Gaza, evidence indicates the devastating impacts of the war on the natural environment in Gaza. In particular, it has been reported that farms have been devastated, and nearly half of the trees in Gaza were razed. While this raises numerous issues, the question of whether Israel's large-scale air strikes on Gaza would make a substantial contribution to serious violations of international humanitarian law (IHL) protecting the natural environment during armed conflicts deserves more thought than it gets.

In this article, I will discuss the legal implications of Israel's military operations for establishing its fault and wrongdoing in relation to the environmental destruction going on in Gaza. I wish to bring into the analysis an issue of central importance that legally proportionate but unnecessary damage to the natural environment must be discerned in the context of basic considerations of humanity.

Environmental protections of IHL

IHL prohibits any warfare that may cause "widespread, long-term, and severe damage to the natural environment". This imposes obligations on States under two cardinal provisions enshrined in Articles 35(3) and 55(1) of the Additional Protocol I to the 1949 Geneva Conventions, whereby States undertake not to engage in warfare having widespread, long-term, and severe damage to the natural environment.

Article 35(3) prohibits the use of "methods or means of warfare which are intended, or may be expected, to cause widespread, long-term, and severe damage to the natural environment". Article 55(1) provides that "care shall be taken in warfare to protect the natural environment against widespread, long-term, and severe damage. This protection includes a prohibition of the use of methods or means of warfare which are intended or may be expected to cause such damage to the natural environment and thereby to prejudice the health or survival of the population."

Both Articles 35(3) and 55(1) are now widely recognised as rules of customary international law applicable in international and non-international armed conflicts. Needless to say, the common base of both articles is the prohibition of "widespread, long-term, and severe damage to the natural environment" during armed conflicts. While it remains dubious what the term "widespread" refers to, the term "severe" in Article 35(3) is perceived to imply ecological concerns and limits on methods and means of warfare. Yet, the term "severe" is construed to mean damage prejudicing the health or survival of the population in Article 55(1).

I have engaged with these in detail elsewhere and to avoid reiteration, I would accentuate the uncertainty and ambiguity on the threshold at which damage to the natural environment would lead to a violation of IHL within the meaning of Articles 35(3) and 55(1). This is in great part because of the disputed nature of the phrase "widespread, long-term, and severe damage," especially the term "long-term," which is referred to as "a period of decades" in the ICRC Commentary on Article 35 (1987, para. 1452), while under Article 1 of the 1976 UN Convention on the Prohibition of Military or Any Other Use of Environmental Modification Techniques (ENMOD), it is understood as a matter of "months or approximately a season".

Environmental destruction as evidence of wrong doing in Gaza

It should come as no surprise if the Israeli officials keep justifying the environmental destruction, especially the devastation of farms and agricultural land in Gaza, under two basic scenarios: destruction required by imperative military necessity to achieve a defined military objective; and the fact that there appears to be little evidence of "widespread, long-term, and severe environmental damage" from Israel's air strikes on the heavily civilian-populated Gaza. The scenario of the destruction of the natural environment required by imperative military necessity will substantially be overruled if the attacker fails to strike a reasonable balance between necessity and the principle of humanity, which explicitly prohibits unnecessary suffering and destruction during armed conflicts. On this wise, none of the parties to armed conflicts can target, destroy, or render useless any objects "indispensable to the survival of civilians". As such, the natural environment is a system of unified ecosystems and sequences that has its own life, but it is indispensable for sustaining human life and for its development. Viewed from this perspective, the destruction of agricultural land that undeniably contributes to the sustenance of civilian populations in Gaza is conceivably an inhumane means of warfare conducted by the Israeli Defence Forces (IDF).

The second scenario derived from the lack of evidence on "widespread, longterm, and severe environmental damage" to the Gazan environment remains questionable. This scenario would be the case only if the present and long-term environmental impacts of the lethal weapons and explosions used by the IDF in Gaza are not known at present, and measuring them will be tricky and complex, if not impossible. There is no denying that determining pollution levels and assessingtheriskstothecivilianpopulationand their environment in Gaza will depend on precise studies and scientific certainty, as well as the monitoring and evaluation of air, water, and soil, as we have seen in case of the 1991 Gulf War, where a permanent UN body was required to investigate and decide with scientific certainty

on alleged environmental damage. On the facts, however, while there is inescapable evidence of real risk and destructive impacts of more than 65,000 tonnes of bombs dropped on the Gaza Strip, which has made the area unlivable, taking advantage of the uncertainty and imprecision in the exact meaning of the phrase "widespread, long-term, and severe damage to the natural environment" is a misconception and speculative behaviour given that it could be invoked to manipulate the obligation to protect the

natural environment in armed conflicts and that destruction of environment may not be used as a weapon. Yet again, this is a pure situation of risk, I would submit, where the principle of 'humanity' would come into play to hinder inflicting unnecessary suffering, injury, and destruction. On the assumption that the law is either uncertain or dubious, the Martens Clause is illustrative enough to obviate this ter $minological \, confusion \, in \, the \, furtherance$ of civilian protection and human security as the overriding objective of IHL. Thus, in cases of uncertainty and ambiguity of the relevant laws or cases not covered by IHL treaties, States are required to respect a minimum standard as established by the principle of 'humanity' and the 'public conscience'. While on the subject, this would remain applicable as the core principle protecting the environment due to the ambiguous and perhaps disputed nature of "widespread, longterm, and severe damage to the natural environment".

It bears reiterating yet, "widespread, long-term, and severe" damage to the natural environment constitutes serious violations of the laws and customs of war and thus can be considered war crimes under Article 8(2)(iv) of the 1998 Rome Statute of the International Criminal Court (ICC). There is no question whatsoever that IHL is a system of protection endeavouring to minimize harm and suffering during armed conflicts. Against this backdrop, the uncertain and almost disputed nature of the prohibition of "widespread, long-term, and severe" damage to the natural environment has nothing to do with the ICC investigations into disproportionate and intentional attacks and explosions that could produce damage to the natural environment not only for decades but also for several months in so far as that the health or survival of the Palestinian population is concerned. Importantly for our purposes, the ecocide and agricultural land devastation that occurred "collaterally" by way of either proportionate or necessary military operations in Gaza, would require respect to a minimum humanitarian standard established by the principle of humanity, as I have touched upon above. This leadsus to what is, in my estimation, the main conclusion that the legally proportionate collateral but unnecessary damage to the natural environment caused by the IDF's large-scale offensive on Gaza must be observed within the limits of the principle of humanity.

It is beyond dispute that the UNSC Reso $lution\,2728\,(2024)\,demanding an imme$ diate cease-fire in Gaza during Ramadan and calling for the immediate and unconditional release of captives should be considered a measure of progressive development by the international community in an effort to reduce civilian harm in Gaza. Having said this, even the UNSC resolution contained no mandate on the growing risk of environmental damage in Gaza. Yet, nothing would dissimulate the fact that even the UNSC resolution did not cease Israel's cycle of violence against Palestinians and their natural environment. That being so, the natural environment remains the silent victim of Israel's war on Gaza. This implies that the UN, in general, and the ICC in particular, should have done more to attenuate the substantial risk of mistreatment of the natural environment, concerning more particularly the ecology, health, and survival of Palestinians.

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Palestinians inspect a farm after an Israeli air strike. One farmer described the land as returning to desert.



Men use their hands to drink rainwater dripping from the roof of a tent at a UN-run school in Rafah, southern Gaza Strip, on November 14, 2023.



People work in a field next to buildings destroyed during Israeli bombardment at al-Bureij refugee camp, the central Gaza Strip, on June 24, 2024.