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Kebebew, Tadesse Moges

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# Water Under Fire: The (il)legality of Reprisals Against Desalination Plants

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## 31 Mar Water Under Fire: The (il)legality of Reprisals Against Desalination Plants

31.03.26 | [0 Comments](#)

*[Tadesse Kebebew is a Project Manager at the Geneva Water Hub, a joint centre of the University of Geneva and the Geneva Graduate Institute. He leads a project that examines the impacts of damage or attacks on water systems on civilians and the environment. He holds a PhD in international law from the Geneva Graduate Institute (Switzerland).]*

### Water Desalination Facilities Have Entered the Battlefield

Water infrastructure has emerged as a critical, and increasingly vulnerable, feature of contemporary armed conflict, and has in many contexts been [deliberately targeted or incidentally damaged](#). This trend is evident in the ongoing [international armed conflict](#)

involving the United States, Israel and Iran. Following [large-scale airstrikes](#) on 28 February 2026 targeting Iran's missile and air defence systems, Iran responded with missile and drone attacks across the region.

Reports indicate that a [desalination facility on Qeshm Island](#) was struck, an incident that reportedly disrupted water supplies to around 30 villages in southern Iran. Iran's Foreign Minister, Abbas Araghchi, condemned the strike and warned that it would set [a dangerous precedent](#). Shortly thereafter, an Iranian drone strike [damaged a desalination plant in Muharraq, Bahrain](#), heightening concerns across the Gulf region about the vulnerability of civilian infrastructure as [the parties continue to warn](#) that they will target regional water and energy facilities. This signals a dangerous attempt to normalise attacks on objects indispensable to civilians.

These developments raise a pressing question: can attacks on desalination plants be lawful? This post argues that as desalination plants qualify as objects indispensable to the survival of the civilian population under international humanitarian law (IHL), and therefore [enjoy heightened protection](#). Any attack on them, including those framed as reprisals, is generally prohibited, except in the circumstances enshrined under Additional Protocol I (AP I), i.e., when they serve sustenance solely for the armed forces, or are used in direct support of military action (provided this may not be expected to result in the starvation of civilians or force its movement), or if the attack is in defence of territory against invasion ([AP I, Article 54\(3\)\(a\)-\(b\), and \(5\)](#), respectively).

### **Strategic Importance of Desalination Plants in the Region**

The legal implications of attacks on desalination infrastructure should be understood in view of the vulnerability of the region facing dire water scarcity – [less than 2% of the world's renewable freshwater, and home to 6% of the world's population](#). The countries in the region account for approximately 60 percent of global desalination capacity, and produce around 40 percent of the world's desalinated water. They [heavily rely on desalination](#) to address chronic water scarcity, with roughly [100 million people](#) dependent on it for their water supply.

Desalination plants form an integral part of the systems sustaining civilian life. Their output directly supports drinking water supplies, healthcare, sanitation and food production. Any disruption generates foreseeable [reverberating effects](#) across multiple sectors, [severely impairing essential services for civilian populations](#). In such contexts, attacks on [essential infrastructure amount to a war on civilians](#). Strict compliance with IHL is therefore necessary to prevent extensive harm to civilians and civilian objects (see e.g., [Report of Experts, p. 93](#)).

### **Legal Protection Under IHL**

The conduct of hostilities in the ongoing armed conflict is governed by both treaty and customary IHL obligations. The three states are not party to AP I, and hence not bound by it as a treaty law, in accordance with the principle of *pacta tertiis* ([Article 34 of the Vienna](#)

[Convention on the Law of Treaties \(VCLT\), 1969](#)). That said, the United States and Iran, as signatory States, remain under an obligation not to defeat the object and purpose of the treaty, unless and until they make clear their intention not to become parties ([Article 18, VCLT](#)). Nevertheless, many of the core provisions of AP I are widely regarded as reflecting customary IHL and are therefore binding on all parties.

Parties must respect the principles of [distinction, proportionality and precautions](#). Under the principle of distinction, desalination plants are civilian objects and, hence, must be spared from attacks ([CIHL, Rule 7](#)). They also benefit from a presumption of civilian status. All attacks be directed exclusively at identified military objectives ([CIHL, Rule 8](#)). The prohibitions of indiscriminate attacks (see [CIHL, Rule 11](#) and [Rule 12](#)) further reinforce this protection. These rules are also restated in the [Geneva List of Principles on the Protection of Water Infrastructure](#).

Even if a desalination plant were to qualify as a military objective, in regions where civilians depend heavily on such facilities for survival, the principles of proportionality and precaution would almost invariably render an attack on it legally difficult to justify. The principle of proportionality requires that the anticipated military advantage of an attack not be outweighed by expected incidental civilian harm ([CIHL, Rule 14](#)). The ‘incidental losses and damages should never be extensive’ ([AP I, commentary](#), para.1980). Such assessment is generally understood to include foreseeable [reverberating effects or indirect impacts that are foreseeable](#). The obligation to take precautions in attack requires parties to adopt feasible alternative measures in planning, deciding on or carrying out attacks ([CIHL, Rules 15-21](#)). Passive precautions require parties to the conflict to protect civilians and civilian objects under their control against the effects of attacks ([CIHL, Rules 22-24](#)). The [Political Declaration on Strengthening the Protection of Civilians from the Humanitarian Consequences arising from the use of Explosive Weapons in Populated Areas](#) also calls for avoiding or minimizing the direct and foreseeable indirect harm to the civilian population.

In addition to these general protections, desalination plants benefit from heightened protection as objects indispensable to the survival of the civilian population ([CIHL, Rule 54](#)). It reinforces the prohibition on starvation of civilians as a method of warfare ([CIHL, Rule 53](#)). This protection, grounded in elementary considerations of humanity, reflects an intransgressible principle of IHL.

## **Reprisals and the Limits Thereof**

One of the most frequently invoked justifications for attacks on infrastructure in armed conflicts is retaliation. In the context of the recent incidents involving desalination plants in Iran and Bahrain, the statements from the parties suggest that some strikes may have been framed as responses to earlier attacks. This raises the question whether reprisals on water desalination facilities can be legally viable.

As a starting point, IHL obligations are not reciprocal ([CIHL, Rule 140](#)). This principle is firmly embedded in [Common Article 1](#) of the Geneva Conventions, which obliges states not only to respect but also to ensure respect for the conventions ‘*in all circumstances*’ (see also, [CIHL Rule 139](#)). The duty to respect the rules governing the conduct of hostilities does not depend on whether an adversary complies with them. In practical terms, this means that violations by one party do not release the opposing party from its legal obligations. Even when an adversary breaches IHL, the responding state must continue to respect the law.

It is true that classical international law recognized belligerent reprisals as exceptional measures, subject to strict conditions – they had to respond to a prior violation, aim to induce compliance rather than punish, remain proportionate, and be undertaken only after warning and the exhaustion of other means ([US DoD Law of War Manual, §18.18](#)). Even under classical doctrine, however, such reprisals were subject to several strict conditions – respond to a prior violation, intended to induce compliance, and be undertaken only after notice or warning had been issued and other avenues for securing compliance had failed ([ASR, Article 52](#)). Whatever limited space classical reprisal doctrine once occupied has been progressively closed for objects indispensable to civilian survival. The prohibition in [Article 54\(4\) AP I](#), though not applicable as a treaty law for the parties to the present conflict, reflects a broader normative shift than contemporary practices (see below).

While the prohibition on directly attacking objects indispensable to the survival of the civilian population is widely accepted as customary IHL, the precise customary status of reprisals against such objects is sometimes described as [uncertain](#) (pp. 82-83). For instance, during the Diplomatic Conference on the Additional Protocols, the United States delegate acknowledged that the draft Protocol ‘had gone far to remove the deterrent of reprisals, for understandable and commendable reasons and in view of past abuses’, while cautioning that ‘massive and continuing attacks directed against a nation’s civilian population could not be absorbed without a response in kind’ ([Official record, vol.7, p. 294](#)). The US DoD Law of War Manual restates this position, while cautioning that reprisals may be counterproductive – risking escalation, cycles of counter-reprisals and undermining post-conflict recovery ([US DoD Law of War Manual, §18.18.3.4](#)). Some states also made reservations upon ratifying AP I. For instance, the United Kingdom, in the event of violations by an adversary, [reserved the right to resort to reprisals](#) strictly to compel compliance, subject to formal warning and a decision taken at the highest level of government. The ICRC’s 2005 study on customary IHL concluded that relevant state practice remains limited and does not clearly support the existence of a permissive rule ([CIHL Rule 147](#), commentary). According to the International Court of Justice (ICJ), *absolute uniformity of practice* is not required for a rule to become customary ([Nicaragua v. United States](#) para.186).

Recent developments reinforce the normative trend toward the strengthened protection for objects indispensable for the survival of the civilian population. In particular, [UN Security Council Resolution 2573 \(2021\)](#), adopted unanimously, condemns attacks against objects

indispensable to the survival of the civilian population, including water infrastructure. In addition, during the United Nations Security Council's [Arria Formula Meeting on the protection of water infrastructure](#), States re-emphasize the strict prohibition of attacking water infrastructure. The United Nations also adopts a comprehensive approach to the protection of civilians that recognises the central role of essential services for civilian survival and dignity (see [UNSG, S/2025/271](#), paras 61-65). These acts constitute important evidence of practice and *opinio juris* ([ILC, Conclusion 6 and 10](#), respectively) and contribute to consolidating this protective norm.

In the case at hand, statements surrounding alleged retaliatory strikes tend to rely on political or strategic justifications rather than articulating a clear legal claim that reprisals against such objects are permissible. In light of the centrality of desalination plants to the survival of civilians, the foreseeable severe humanitarian consequences of attacks, and broader normative trend toward their enhanced protection, the incidents should be more appropriately characterized as violations of the heightened protection under IHL. As indicated earlier, such practical consequences are recognised, even by states not party to AP I, when considering resort to reprisals. Moreover, at the broader level, such destruction risks exacerbating [animosity and perpetuates a cycle of violence and violations](#), thereby undermining prospects for peace.

## **Conclusion**

Reprisals against objects indispensable to the survival of the civilian population are difficult to reconcile with contemporary IHL. Even non-parties to AP I are expected to refrain from using reprisals against such objects. In the Gulf region, where desalination plants serve as literal lifelines for millions, treating them as legitimate targets risks normalising the weaponization of water itself, with devastating humanitarian consequences. Far from deterring violations, such attacks fuel cycles of retaliation and undermine prospects for sustainable peace. Accordingly, the incidents should not serve as precedent, but rather as a stark reminder of why IHL imposes strict limits on attacks against essential civilian infrastructure.

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