



GLOBAL ALLIANCE TO SPARE WATER FROM ARMED CONFLICTS

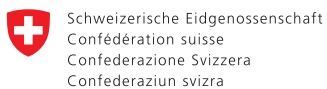
Report of the 22-23 November 2023 Workshop
Geneva Water Hub office, WMO building, Geneva



Global Alliance

TO SPARE WATER FROM ARMED CONFLICTS

Organized by



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Contents

Introduction	4
1. Objectives of the Workshop.....	6
2. Background: Water and Armed Conflicts	8
3. Workshop Summary: A Recap of Key Points and Discussions.....	12
3.1 How do armed conflicts affect freshwater, water-related installations, and essential services?.....	12
3.2 What are the strengths and areas for improvement in existing legal frameworks for the protection of freshwater and water infrastructure?	16
3.3 What are the challenges in implementing and enforcing existing legal frameworks?	25
3.4 How can we strengthen the system of protection to address the far-reaching impacts of armed conflicts? ...	34
3.5 What are the key areas of action for the Alliance to spare water from armed conflicts?	37
4. The Way Forward: Forging a Shared Vision within the Alliance	42
5. Annex I: List of workshop participants.....	44

Introduction

On 22-23 November 2023, the Geneva Water Hub (GWH) and the Ministry of Foreign and European Affairs of Slovenia organized a workshop titled the '*Global Alliance to Spare Water from Armed Conflicts*'. The workshop gathered together representatives of states, international organizations, military experts, humanitarian NGOs, and academia.¹ Over two intensive days, the workshop delved into the extensive ramifications of armed conflicts on freshwater resources and water infrastructure. The workshop theme was framed to address the intricacies within legal and policy frameworks and the challenges in enforcing laws, with the outcome of endorsing key activities for a Global Alliance committed to the protection of water during conflicts. The Alliance envisions promoting a deeper comprehension of the far-reaching consequences of water-related attacks, bolstering protection through international law, engaging both state and non-state armed groups, advocating good practices and drawing insights from experiences.

Throughout the workshop, understanding the reverberating effects and cumulative impacts of armed conflicts on civilian populations and evaluating the hurdles in effectively implementing current legal frameworks related to freshwater and water infrastructure took the central stage. The workshop dealt with the protection of infrastructure, the equipment and goods employed in its production and distribution essential to ensure accessibility to water. It also addressed the secondary impacts of attacks against water-related services and facilities on health, food security, environmental sustainability, and education. There was also a call to initiate the groundwork for a UN resolution or an inter-governmental political declaration or treaty to spare water from armed conflicts.

Critical themes explored encompassed the intricate interdependence of essential services, the extensive ripple effects of attacks on civilian infrastructure and services, influencing long-term health and well-being of civilians, implementation and enforcement challenges related to the legal frameworks applicable to the protection of water during armed conflicts, and difficulty associated with evidence and documenting harm and damage. The discussions also shed light on the chasm

¹ See the list of participants under Annex I.

between existing legal frameworks and their real-time application in the complex theatre of armed conflicts. The pressing need for more precise guidelines, awareness creation, and enhanced global cooperation emerged as recurring themes. The group discussions propelled forward-looking strategies for the Alliance, encapsulating a collective vision aimed at sparing water from the ravages of armed conflicts, underscoring the necessity for a holistic and multi-dimensional approach and grassroots engagement vital for sparing water amidst the tumult of armed conflicts.

The report captures key points raised during the workshop. The structure of the report commences with an overview of the workshop objectives, followed by an exploration of the contextual factors necessitating the enhancement of water resources and infrastructure protection during armed conflicts. It then summarises interventions and discussions, starting with examining the direct and indirect impacts of armed conflicts on water resources and infrastructure. The report then highlights deliberations on the existing legal frameworks safeguarding water resources and installations during armed conflicts, alongside potential avenues for bolstering this protection under international law. It then details discussions centred on the challenges associated with the implementation of these legal protections. Finally, the report synthesizes insights from group exercises, spotlighting the identification of a shared vision for the Global Alliance and outlining a list of key activities participants outlined during the workshop.

The workshop was structured to foster an environment conducive to substantive discourse among experts. Discussions were conducted under the Chatham House Rules, ensuring participants could openly express their viewpoints.

1. Objectives of the Workshop

This workshop aimed to examine the legal frameworks for the protection of water resources and infrastructure, the implementation and enforcement of the protections, and the challenges encountered by both militaries and humanitarian actors. It also aimed to lay the groundwork for establishing a Global Alliance to spare water from armed conflicts and to define a core set of activities for the Alliance. The Alliance will involve a core group of key stakeholders working jointly to galvanize efforts to protect water infrastructure, within the broader ambit of the protection of civilians. As outlined in the concept note,² the specific objectives were:

- Advance understanding of the consequences of attacks on water resources for both populations and the environment and galvanize efforts to protect populations from water-related harm during armed conflicts and other violent situations.
- Reinforce respect for international laws safeguarding freshwater and related installations.
- Propose actionable steps for the Alliance to strengthen legal protections, disseminate international humanitarian law, and engage states and armed non-State actors (ANSAs).
- Advocate for relevant instruments such as the UN resolutions.
- Assess the UN's role in promoting water protection and evaluating unintended impacts of sanctions.

² See GWH, The Concept note and program (see Annex II).



2. Background: Water and Armed Conflicts

By the time of the workshop in 2023, the world was embroiled in over 100 armed conflicts, spanning international armed conflicts (IACs) and non-international armed conflicts (NIACs), escalating humanitarian needs. More than 180 million individuals in armed conflicts areas suffer from the destruction, misuse, or devastation of water resources. Resultantly, over 2 billion people lack access to safe drinking water, underscoring the imperative for immediate collective action. This crisis is starkly evident in the staggering vulnerability of children under five, and expectant mothers who face a greater risk of succumbing to illnesses stemming from unsafe drinking water compared to direct conflict-related risks.

Armed conflicts are becoming longer and more complex, and the weaponization of water is becoming more common, and this sparks off a spiral of other armed conflicts. Water has never been so heavily weaponized as over the last few years. Civilians have never suffered so much from the weaponization of water, possibly since WWII. The toll of armed conflicts extends beyond direct conflict, profoundly affecting civilian populations, freshwater, and essential civilian infrastructure, including water facilities and installations. The severity is notably heightened in prolonged and urban conflicts, where critical interconnected infrastructure, including vital systems like food production and healthcare, become increasingly susceptible to attacks. The use of explosive weapons in such conflicts further exacerbates these challenges, hindering the restoration and maintenance of indispensable services.

The intentional pollution, destruction, and disruption of water sources amidst armed conflicts trigger far-reaching and enduring repercussions. These actions can inflict long-term damage on livelihoods, public health and spur displacement and societal instability. The impact of unsafe water is comparable to direct attacks. It extends beyond water sources to affect critical services like healthcare facilities, amplifying the devastation through waterborne diseases and food security. Moreover, these consequences extend far beyond immediate conflict zones, permeating neighbouring regions and significantly impeding recovery efforts.

Economic sanctions further exacerbate the situation by hindering the importation of essential supplies and causing a depletion of skilled personnel, thereby obstructing crucial operational and maintenance endeavours. This includes both hardware, such as pumping equipment, and consumables, like water treatment chemicals, as well as the availability of qualified personnel and the necessary financial resources to address these challenges.

Meanwhile, uncertainties linger within certain aspects of the legal frameworks, including international humanitarian law (IHL), addressing the protection of water resources and infrastructure, leading to knowledge gaps that impede clear interpretation and application. For instance, it is prevalently recognized that reasonably foreseeable reverberating effects during an attack, must be taken into consideration in the application of proportionality and precautions. However, the precise scope and practical integration of this requirement remain ambiguous, necessitating further clarification. Similarly, considering cumulative civilian harm is imperative to uncover the hidden human toll stemming from both immediate and prolonged consequences and indirect effects such as infrastructure degradation and broader socio-economic impacts. These are often overlooked, revealing a blind spot within legal frameworks. Furthermore, challenges in effectively implementing and enforcing the legal protections compound the issue, indicating a need for more robust strategies to protect water resources and infrastructure.

Armed conflicts present formidable challenges that extend far beyond affected civilian populations, profoundly challenging the resilience and functionality of essential infrastructure systems. Given the far-reaching humanitarian consequences, it is imperative to bolster civilian protection, clarify uncertainties within legal frameworks, and address pressing implementation and enforcement gaps. Urgent and collective endeavours are essential to bridge these gaps, mitigating the repercussions of armed conflicts on civilian populations, and fostering resilience for lasting peace. As noted by the work of the Global High-level Panel on Water and Peace, ensuring better water protection and water cooperation is vital to achieve sustainable peace.³

³ Global High-Level Panel on water and Peace (GHLPP), A Matter of Survival, (Report 2017).

In anticipation of the workshop, GWH prepared a background note⁴ emphasizing the characteristics of contemporary armed conflicts - protracted, asymmetric, and frequently occurring in urban settings. The note illustrates a range of direct and indirect impacts of armed conflicts such as the weaponization of water, destruction of water facilities, contamination of freshwater, and the heightened risk of waterborne diseases for the population. Additionally, it highlights the prevailing challenges associated with the existing legal frameworks and underscores a noticeable gap in the implementation and enforcement of the law, including by some influential global players. The background note accentuates the urgent need for collective action for the better protection of freshwater and water infrastructure, particularly in fragile and conflict-affected areas. The GWH also compiled a compendium detailing relevant rules of international law for the protection of water resources and infrastructure, which was distributed to participants in advance.⁵

⁴ See GWH, Call for the Alliance to Spare Water from Armed Conflicts, (Annex III)

⁵ GWH, Legal Tools Applicable to the Protection of Freshwater, Water Infrastructure and Water-Related Infrastructure, (Geneva Water Hub, 2023) (Annex IV).



3. Workshop Summary: A Recap of Key Points and Discussions

This section provides a summary of key points and discussions made during the five sessions of the workshop. It starts by presenting the discussions on the impact of armed conflicts on freshwater and water infrastructure, encompassing both direct and indirect consequences, along with recommendations to mitigate associated challenges. It then succinctly presents considerations on the prevailing legal frameworks, highlighting areas with gaps necessitating improvement. That is followed by the summary of challenges identified in implementing and enforcing legal protections. The concluding segments of this section spotlight insights gleaned from two sessions dedicated to group exercises focusing on identifying a shared vision for the Global Alliance and listing key activities discussed by participants.

3.1 How do armed conflicts affect freshwater, water-related installations, and essential services?

The workshop offered a comprehensive analysis of the multifaceted impacts of armed conflicts on water infrastructure and essential services, unravelling the dire implications for civilian populations and critical urban systems. It drew insights from academic research on reverberating effects and practical case studies from Syria (Aleppo) and Yemen, highlighting the devastating direct and indirect impacts of attacks on freshwater and water infrastructure, including severe disruptions in water supply services, healthcare, and sanitation and leading to the outbreak and spread of diseases. Participants stressed the evolving complexities of urban warfare and protracted armed conflicts. The discussions underlined the devastating consequences of neglecting water in armed conflicts, citing the siege of Sarajevo and more recent instances in Ukraine and Gaza. The interconnectedness of critical civilian infrastructure and degradation of the water systems over time further compound the problem. Many of the damages to infrastructure during conflicts could have been foreseen and prevented, underlining the importance of better planning and foresight at the military level to improve the overall resilience of systems.

Direct and indirect impacts

The discussions focused on both the direct and indirect impacts resulting from attacks or damages, encompassing destruction of water facilities, warehouse of spare parts and consumables, disruption of the supply chain, and physical harm to individuals or loss of operations and maintenance crews. These lead to water loss, a breakdown of water supply, production or treatment. It was indicated that the far-reaching consequences extend beyond the immediate conflict zones and persist long after conflicts subside. The complex interlinkages between water, electricity, information and communication technologies (ICTs), and healthcare systems were underlined, shedding light on the foreseeable reverberating effects of damaging water infrastructure. It was indicated that reverberating effects carry the initial shock of an attack through the water system, causing more widespread and, in many cases, long-term impacts.⁶

The conversation extended to the broader repercussions, the reverberating effects on upstream and/or downstream components of the same service or on other essential services, including implications for public health (e.g., increased spread of waterborne diseases, deterioration of health services, and psychological distress and lasting trauma), food security (might even lead to starvation), upheaval of livelihoods and other aspects of civilian life, displacement and the environment. Besides, armed conflicts escalate operational costs, weaken institutional capacity, reshape employment landscapes, disrupt economic activities, and cause revenue loss for water utilities. During the discussion, attention was also paid to the exorbitant cost of infrastructure repair coupled with diminished external funding amidst instability and import restrictions compound these challenges, severely limiting access to resources and exacerbating the strain on affected population.

It was also noted that many states agree to take into account reasonably foreseeable reverberating effects when planning attacks or broader military operations. Some armed forces integrate technical expertise to anticipate these effects when targeting military objectives. While strides have been made in understanding reverberating effects, including through research of organizations such as the ICRC,⁷ UNICEF,⁸ and

⁶ See Isabel Robinson and Ellen Nohle, "Proportionality and Precautions in Attack: The Reverberating Effects of Using Explosive Weapons in Populated Areas," *International Review of the Red Cross* 98, no. 901 (2016), and Mark Zeitoun and Michael Talhami, "The Impact of Explosive Weapons on Urban Services: Direct and Reverberating Effects Across Space and Time," *International Review of the Red Cross* 98, no. 901 (2016).

⁷ ICRC, see e.g., [here](#).

⁸ UNICEF, Water under Fire Projects, see [here](#).

UNIDIR,⁹ there are still ongoing issues on the relativity of what practically ‘reasonably foreseeable reverberating effects’ mean or include. It was indicated that there is a need to produce concrete evidence detailing how these effects affect livelihoods, food security, and health during and inform the military (they consider foreseeable reverberating effects based *on available information at the time of the attack*) and decision- and policy-makers to bolster the protection of freshwater and water infrastructure.

Realities on the ground and the need for preventive strategies

The discussion placed particular emphasis on comprehending the realities of armed conflicts and underscored the need to develop preventive strategies. Attention was given to interconnected critical infrastructure, especially in urban areas, that heightens the vulnerability of water systems to reverberating impacts.¹⁰ Notably, the centralized nature of many contemporary water systems amplifies the repercussions of damage to a single point, as was the case in Aleppo (Syria) and Mosul (Iraq), where an attack on a facility can disrupt the entire water supply network, impacting entire city populations and other water-reliant services. In addition, most armed conflicts are protracted, featuring fast-shifting frontlines and various armed forces, leading to severe direct effects and enduring indirect consequences. Cumulative impacts of the conflict and unintended consequences of sanctions gradually degrade the service (whether its people, hardware or consumables) and erode the resilience of water infrastructure, progressively undermining their operation and maintenance.

Besides, the participants raised operational challenges in assessing and mitigating impacts, including what is practically feasible in the fog of war, and the lack of a nuanced and common understanding of what reverberating effects include. They also accentuated the critical role of intelligence in assessing the protection of water resources, highlighting the complexity of estimating damages and the need for equipping military personnel adequately. While some militaries use collateral damages estimation methods, others do not always have the capability or resources to assess damages. Apart from essential intelligence capabilities required for enforcing foreseeability, there is a critical need to make data and information available to military personnel and decision-makers. This accessibility ensures that armed forces cannot cite a lack of information as an excuse during operations. The discussions also highlighted some challenges in trusting adversaries about data reliability or feasibility of obtaining one about such critical infrastructure.

⁹ UNIDIR, see [here](#) and [here](#).

¹⁰ See ICRC, *Explosive Weapons With Wide Area Effects: A Deadly Choice in Populated Areas* (2022)

The participants noted the critical role of preventative strategies and compliance with IHL in averting crises triggered by damages to water infrastructure. The discussions showed the need for preparedness (e.g., urban planning to anticipate and navigate the risk for civilians), awareness, and collaborative efforts to mitigate civilian harm and increase system resilience during conflicts and disaster response. Emphasis was also placed on ‘educating’ commanders and establishing pre-conflict plans to protect water resources and infrastructure. The participants indicated the pivotal influence of directives/instructions from commanders across all operational tiers, and underscored that unless the protection of water receives priority at the leadership level, its significance might not be acknowledged at the tactical level. There was a suggestion for the Alliance to keep in mind the need to have protected areas around freshwater and water-related infrastructure.

Proposed actions and strategies

The discussions led to some actionable recommendations to protect water resources and infrastructure during armed conflicts. These actions include:

- Promoting a deeper understanding of the impacts and long-term consequences of attacks against or damages to water infrastructure, including cumulative impacts.
- Building evidence that the weaponization of water represents a violation of international law, including IHL and human rights law.
- Strengthening the protection ensured by international law, including potentially initiating a UN resolution or an inter-governmental treaty or political declaration to spare water from armed conflicts.
- Training and ensuring exchange with militaries on the importance to preserve water, so it is better integrated from the planning stage.
- Explore the possibility of including the protection of water in the mandates of peacekeeping missions.
- Pre-conflict preparedness to shield water infrastructure and essential services, resilience-building measures (e.g., cities designed with multiple water sources) and awareness campaigns, and
- Evidence-based decision-making, policy formulation and advocacy to spare water resources and water infrastructure from armed conflicts.

3.2 What are the strengths and areas for improvement in existing legal frameworks for the protection of freshwater and water infrastructure?

The second part of the workshop focused on how and to what extent freshwater, water infrastructure and essential services are protected by several legal instruments codifying or developing international law.¹¹ The presentations and discussions covered different treaties, customary law, other documents, and instruments codifying or developing international law, such as ICRC's Guidelines on the Protection of the Natural Environment in Armed Conflict (ICRC Guidelines), the International Law Commission's (ILC) Principles on the Protection of the environment in relation to armed conflicts (PERAC Principles) and Declaration on Protecting Civilians from the Impact of Explosive Weapons in Populated Areas (EWIPA). There was also a discussion on the UN Security Council (UNSC) resolutions, such as 2417 and 2573.

ICRC's Guidelines on the Protection of the Natural Environment in Armed Conflict (ICRC Guidelines)

The ICRC Guidelines principally focus on how the rules of IHL protect the natural environment. It aims to provide guidance to warring parties, facilitate the adoption of concrete measures, and reduce harm to conflict-affected communities. This instrument is relevant for the protection of water resources and infrastructure. First, it adopts an 'intrinsic value approach' and clarifies that the term natural environment under IHL includes oceans and other bodies of water and also other elements that may be the product of human intervention, inter alia, foodstuffs and drinking water.¹² Second, the Guidelines highlight issues related to using water as a means or method of warfare due to its potential indiscriminate effects.¹³ Third, Rule 9 on passive precautions and Recommendation 17 (under discussion on demilitarized zones and non-defended localities) address the protection of areas of major ecological importance or particular fragility, including groundwater aquifers.¹⁴ And, finally, in the commentaries of its rules on proportionality and precautions and rules on specific weapons, there are several examples

¹¹ For the list of relevant instruments and rules, see Annex IV.

¹² ICRC, *Guidelines on the Protection of the Natural Environment in Armed Conflict: Rules and Recommendations Relating to the Protection of the Natural Environment under International Humanitarian Law*, with Commentary, Geneva 2020 (ICRC Guidelines), para. 16.

¹³ Ibid, Rule 3, paras 79 and 82.

¹⁴ Ibid, Rule 9, para. 144 and Recommendation 17, para. 208.

regarding water pollution or contamination, damage to natural water reservoirs or damage to power plants with effects on wastewater treatment.¹⁵

International Law Commission's Principles on the Protection of the environment in relation to armed conflicts (PERAC Principles)

The other instrument discussed was the PERAC Principles.¹⁶ In 2022, the UNGA took note of the PERAC Principles.¹⁷ The PERAC Principles enshrine a mixture of rules and principles relying on various branches of international law, such as IHL, international environmental law, and human rights law as well as based on the practice of states and non-state actors. Some rules are codifications of existing rules, while others represent the progressive development of international law in line with the mandate of the ILC. The purpose of PERAC principles is to enhance 'the protection of the environment in relation to armed conflicts, including through measures to prevent, mitigate and remediate harm to the environment'.¹⁸ Its temporal scope extends to the entire conflict cycle - before, during and after armed conflicts, including situations of occupation.¹⁹ Its rules are addressed primarily to states but cover other actors such as international organizations, ANSAs and business enterprises. Its rules on armed conflicts also did not as such distinguish between IAC and NIAC, though in the commentaries to its principles some differences under IHL were highlighted. Protection of the environment is intimately linked with the protection of water resources. International law applicable to the general protection of the environment during armed conflict and rules and principles regulating the conduct of hostilities - distinction, proportionality and precautions relevant to the protection of the environment, equally apply to protect water.²⁰ The PERAC Principles recognize the importance of designating areas of environmental importance, including where those areas are of cultural importance, as protected zones to spare such areas from impacts of armed conflicts, including direct attacks.²¹ The instrument also recognizes state responsibility for internationally wrongful acts that cause environmental damage and the obligation 'to make full reparation for such damage, including damage to the environment in and of itself'.²²

¹⁵ Ibid, Rule 2, para. 57, 'Damage to numerous smaller areas may also cumulatively qualify as "widespread". This may be the case, for example, when the use of a method or means of warfare results in the contamination of underground water systems, which in turn contaminate natural springs in several different locations'. (citation omitted)

¹⁶ ILC, *Principles on protection of the environment in relation to armed conflicts*, with commentaries, adopted by the Commission in its seventy-third session in 2022 (PERAC Principles).

¹⁷ UNGA, [Resolution 77/104](#), December 2022.

¹⁸ PERAC Principles, Principle 2.

¹⁹ Ibid, Principle 1.

²⁰ Ibid, Principles 13 and 14.

²¹ Ibid, Principles 4 and 18.

²² Ibid, Principle 9.

The Political Declaration on Protecting Civilians from the Impact of Explosive Weapons in Populated Areas (EWIPA)

The Declaration on protecting civilians from the impact of EWIPA is endorsed by over 80 states.²³ The UN has long recognized the severe humanitarian consequences resulting from the use of explosive weapons in populated areas and also noted that the ICRC has been urging states and parties involved in armed conflict to refrain from using such weapons with wide impact areas in densely populated. This historic declaration embodies the culmination of a meticulously woven tapestry of collaborative endeavours of the UN, ICRC, a consortium of states, and various civil society organizations, spanning over a decade to enhance the protection of civilians. The Declaration focuses on avoiding or minimizing the direct and foreseeable indirect harm to the civilian population and improving understanding of the effects of explosive weapon use on civilians to drive operational changes and effective responses.²⁴ The Declaration, astutely cognizant of the interconnectedness of *critical civilian infrastructure*, such as energy, water, food, and sanitation - acknowledges the potential reverberating effects stemming from attacks or damages to any one of these vital elements.²⁵ It commits endorsing states to provide comprehensive training of armed forces, and implement more robust standards for safeguarding civilians by adapting their national policies and practices.²⁶ It also encourages the collection, sharing, and public availability of detailed data on the effects of military operations using explosive weapons in populated areas and the sharing policies and best practices.²⁷

The UN Resolutions and Reports

The workshop also examined two critical UNSC Resolutions 2417 and 2573, unanimously adopted on 24 May 2018 and 27 April 2021, respectively, the annual reports of the UN Secretary-General on the protection of civilians and the UN sanctions regime. The first resolution recalls the link between armed conflict and violence and conflict-induced food insecurity – and underscores that better respect for IHL contributes towards mitigating conflict-related food insecurity.²⁸ It strongly

²³ See [Political Declaration on Strengthening the Protection of Civilians from the Humanitarian Consequences arising from the use of Explosive Weapons in Populated Areas](#) (2022).

²⁴ Ibid, §§ 1.3, 1.6, 3.3 and 3.4.

²⁵ Ibid, §§ 1.2 and 1.4.

²⁶ Ibid, §§ 3.1- 3.6.

²⁷ Ibid, §§ 4.2 and 4.7.

²⁸ UNSC, Resolution 2417 (2018), §§ 1 and 2.

condemns the use of starvation of civilians as a method of warfare and the unlawful denial of humanitarian access and depriving civilians of objects indispensable to their survival.²⁹ Resolution 2573 demands that all parties to armed conflict fully comply with their obligations under IHL regarding taking due care to spare the civilian population and civilian objects, and refraining from attacking, destroying, removing or rendering useless objects indispensable to the survival of the civilian population, and respecting and protecting humanitarian personnel and consignments used for humanitarian relief operations.³⁰ It also condemns the use of starvation of civilians as a method of warfare in a number of armed conflict situations.³¹ It reiterates the important role that capacity building in IHL can play in supporting efforts to protect objects indispensable to the survival of the civilian population.³²

The UN Secretary-General's annual reports on the protection of civilians in armed conflict recognize the impact of conflict on food insecurity and water availability and supply, causing contamination, the outbreak of deadly infectious diseases and the risk of malnutrition, and the reports often call for effective implementation of resolutions 2417 and 2573, the review policies and practices relating to civilian harm mitigation, and ensure accountability for violations.³³

In relation to sanctions, the UNSC sanctions span a spectrum, from comprehensive economic embargoes to more focused measures like arms embargoes, travel bans, and financial or commodity restrictions.³⁴ The human rights obligations enshrined under the UN Charter put limitations on the power of the UNSC. The UNSC has the power to adopt sanctions (enshrined under Article 41 of the UN Charter) and to take decisions that must be implemented by member states (Article 25). However, its powers must be exercised 'in accordance with the Purposes and Principles of the United Nations' (Article 24). One of the objectives of the UN is to promote and encourage universal respect for human rights and fundamental freedoms for all and it requires member states to take joint and separate action to achieve the same.³⁵

²⁹ Ibid, §§ 5 and 6.

³⁰ UNSC, Resolution 2573 (2021), § 3.

³¹ Ibid, § 4.

³² Ibid, § 8.

³³ See e.g., Protection of civilians in armed conflict, Report of the Secretary-General, [S/2023/345](#), 12 May 2023, §§ 2, 3, 72-89, and 90.

³⁴ UNSC, [Sanctions](#).

³⁵ United Nations, [Charter of the United Nations](#), 1 UNTS XVI, 24 October 1945, Articles 1, 55 and 56.

Armed non-State actors and Deed of Commitments

The workshop also discussed the importance of engaging ANSAs for better implementation of the legal protection for water resources and water infrastructure. To that end, the relevance of the ‘Deed of Commitment on the Prevention of Starvation and Addressing Conflict-Related Food Insecurity’ developed by the Geneva Call was highlighted.³⁶ The introduction of Deeds of Commitment that reflect international standards tailored to specific themes, provides ANSAs with an opportunity to publicly commit to upholding IHL and human rights law. This approach fosters compliance by granting ANSAs ownership of these rules and ensuring accountability for their actions. These Deeds of Commitment, witnessed by the Geneva Call and countersigned by ANSA leaders, are further secured by deposition with the Canton of Geneva, reinforcing their significance.³⁷ Through these Deeds of Commitment, the Geneva Call oversees compliance with the contained obligations, highlighting instances of adherence and non-adherence. The specific Deed of Commitment addressing conflict-related food insecurity and the prevention of starvation references water. Notably, it encompasses the importance of water in the preambular section, emphasizing objects essential for civilian survival, such as drinking water supply and installation protocols. It focuses on preventing water contamination, promoting a holistic view that safeguards cultural areas and ensures broader protection.

Discussions on the strengths of the current legal frameworks

The discussions emphasized the efficacy of the legal frameworks, probing into their enforcement mechanisms and identifying gaps, particularly in addressing water-related concerns amid conflict scenarios. Participants engaged in critical discussions regarding the efficiency of the existing legal frameworks and the need for sharing good policies and practices. There appears to be a consensus, in principle, on the sufficiency of the current legal frameworks and, in certain areas, the need for a more comprehensive interpretation and integration of legal frameworks to encapsulate the intricacies of protracted and/or urban conflicts, including the reverberating humanitarian and environmental ramifications. The increasing applicability of human rights law in situations of armed conflicts and their protective role in other situations where the applicability of IHL is not yet triggered, is also a positive progress. Some

³⁶ The [Deed of Commitment](#) was launched on 20 September 2021. [Geneva Call](#) is a neutral, impartial and independent international humanitarian organization. It works to improve the protection of civilians in armed conflict by promoting respect among armed groups and de facto authorities for international humanitarian norms and principles.

³⁷ See [Deeds of Commitments](#).

human rights provisions are non-derogable. The discussions further illuminated the crucial role of legal clarity, compliance, and adaptability in addressing the evolving landscape of conflicts and the protection of vital water resources.

The participants noted the positive contributions of the ICRC Guidelines, the PERAC Principles, EWIPA and other instruments. For instance, the ICRC's Guidelines have given pertinent examples when defining the notion of prohibition of 'widespread' harm to the natural environment, including the contamination of underground water systems, which in turn contaminate natural springs in several different locations. The ICRC also developed the Handbook on Partnered Military Operations in 2022,³⁸ which seeks to stimulate awareness and actions and supports partner commanders and staff in planning and conducting operations in ways that prevent or reduce civilian harm and suffering. The handbook recognizes both direct harm and indirect harm or reverberating effects, and notes that the latter is often more destructive and challenging, urging commanders to adopt a comprehensive approach encompassing both types of impacts.³⁹

Regarding the PERAC Principles, the discussion noted that, though there is no specific principle addressing the protection of freshwater or water infrastructure, the Principles remain relevant as water resource is an integral part of the environment. Participants also highlighted that the instrument would have a significant contribution in terms of ensuring accountability of states and corporations. However, they noted that, unfortunately, the PERAC Principles did not directly address the accountability of ANSAs for environmental damage.

The discussion on the EWIPA declaration underscores that this instrument establishes a framework to enhance the protection of civilians in armed conflicts and paves the way for a concerted global initiative poised to mitigate the far-reaching impact of explosive weapons on civilian populations.

The participants noted the significance of the UNSC resolutions in upholding compliance with international law, particularly IHL and human rights. These resolutions not only provide a framework for interpretation and clarification of existing

³⁸ ICRC, Preventing Civilian Harm in Partnered Military Operations: A Commander's Handbook, Geneva, January 2022 (Handbook on PMOs).

³⁹ Ibid, p.10. 'Critical civilian infrastructure, such as vital water and electrical facilities and supply networks, is particularly fragile and vulnerable to the incidental effects of attacks, particularly in urban settings. The interconnectedness of the essential services that depend on critical infrastructure is such that disruption to one service will have knock-on effects on the other service, such as health care, energy and water supplies and waste management, leading to the spread of disease and further deaths.' (fn. 3).

rules but also serve as platforms for recommending best practices. In this regard, it was indicated that the UNSC resolution 2573 offers a certain interpretation of what objects for the survival of the population could mean. This can help to advance the interpretation of the IHL norm on the protection of ‘objects indispensable to the survival of the civilian population’, by including ‘objects critical to the delivery of essential services’. Similarly, Resolution 2417 addresses not only food and water but also includes objects necessary for food production and distribution, such as farms, markets, water systems, mills, food processing and storage sites, and hubs and means for food transportation.⁴⁰

Regarding the reports of the UN Secretary-General on the protection of civilians, participants noted that these documents consistently emphasize the protection of objects indispensable to the survival of the civilian population, such as safe drinking water. It is imperative that these reports comprehensively cover the protection of freshwater and infrastructure, documenting damages or attacks on water infrastructure within the broader spectrum of safeguarding civilian lives during armed conflicts.

Discussions on the UN sanctions did not extensively cover strategies for addressing sanctions but emphasized the ongoing need for vigilance in addressing inadvertent humanitarian impacts stemming from sanctions. Participants noted the progress made in addressing the unintended consequences of such a regime and the importance of continuously refining approaches to sanctions. They stated that even if water resources or water infrastructure are not a direct object of sanctions, there may be indirect effects on the human right to water. For instance, the collapse of export revenues and imports might bring public health problems related to water and sanitation. Similarly, a ban on the import of products might hamper the import of spare parts, machinery, pumps and other supplies that are vital for reconstruction, rehabilitation and repair of water infrastructure and water-related infrastructure and treatment of water and wastewater. Such objects and consumables should be exempted from sanctions and other coercive measures.

The UNSC has been actively taking measures to address the unintended consequences of sanctions and urging states to comply with their obligations under IHL and human rights law. It was pointed out that, as far back as 1997, the UN Committee on Economic, Social and Cultural Rights (CESCR) recognized the impacts of sanctions on the

⁴⁰ UNSC, [Resolution 2417 \(2018\)](#), § 1.

respect for economic, social and cultural rights.⁴¹ The General Comment indicates that while the impact of sanctions varies from one case to another, sanctions almost always have a dramatic impact on the rights recognized in the Covenant, including on the availability of clean drinking water, severely interfere with the functioning of basic health and education systems.⁴² It underscores the need to distinguish between the basic objective of applying political and economic pressure upon the governing elite and the collateral infliction of suffering upon the most vulnerable groups within the targeted country.⁴³ Some efforts directed toward seeking exemptions for humanitarian activities to alleviate inadvertent adverse effects have been taking place, including ad-hoc humanitarian exemptions. Resolution 2664 (2022) includes a general humanitarian exemption in asset-freeze UN resolutions for funds and assets for humanitarian assistance activities to meet basic needs.

Discussions relating to the observed gaps and areas for improvement

The discussions also noted some gaps and unclarity within the existing legal frameworks and practices. Addressing this is increasingly critical amid the alarming trend of weaponizing water resources and infrastructure, heightening the plight of civilian populations. The gaps and unclarity related to the legal frameworks mentioned include:

1. Existing laws do not include an explicit prohibition against utilizing water resources or water infrastructure as a means of warfare. IHL rules are much more stringent in terms of the duty to respect and protect medical units, personnel and transports, but the same cannot be said for water, at least not yet. The participants, however, indicated that water and its related infrastructure indirectly benefit from (i) the prohibition of specific methods of warfare - the prohibition of starvation and ‘attacking, destroying, removing or rendering useless objects indispensable to the survival of the civilian population’ and (ii) specifically protected objects - objects containing dangerous forces – dams and dykes.
2. There are still ongoing debates on how attacks on ‘dual-use’ objects should assess, and what practically ‘reasonably foreseeable reverberating effects’ mean and how to factor it in proportionality and precautions in attack.

⁴¹ UN CESCR, General Comment No. 8: The relationship between economic sanctions and respect for economic, social and cultural rights, [E/C.12/1997/8](#), 12 December 1997.

⁴² Ibid, § 3.

⁴³ Ibid, § 4.

3. Whether and how to factor cumulative civilian harm and damages to civilian objects, which is very common in protracted armed conflicts, under the conduct of hostilities rules. IHL rules are formulated to regulate individual attacks or military operations intended to achieve specific military objectives and they do not explicitly address accumulated harm to civilians and/or damage to civilian objects that can unfold over time during conflicts.
4. The discrepancy between the treaty rules for IAC and NIACs and the rule under customary IHL (the treaty rule for NIAC and the rule under customary IHL – e.g., objects indispensable to the survival of the civilian population - do not mention exceptions).
5. A cautious note was also delivered regarding the obligations of ANSAs under human rights law, and how that could interact with IHL obligation (e.g., prohibition of pillage).
6. The absence of criminalization of attacks against or damages to the environment under IHL treaty rules applicable to NIACs.
7. There was a prevailing consensus acknowledging the regulation of cyber operations under international law. There was a debate on whether the destruction of data can constitute an armed attack and participants highlighted the critical need for agreed-upon IHL rules tailored for cyberspace.

In addition, a few areas of improvement surfaced during the discussion:

1. There is a need to have a common understanding of applicable legal frameworks, including IHL, among military and decision-making entities, emphasizing the practical challenges of enforcing these laws in conflict zones. This requires dissemination of IHL, clearer guidelines and training for the militaries. There was a suggestion to introduce ‘hypothetical scenarios’ in training exercises, which might give military forces the possibility to reflect on where boundaries lie and enrich their understanding of the far-reaching reverberating effects of attacks on critical civilian infrastructure.
2. The need to strengthen the role of inquiring commissions, which are instrumental in enhancing accountability.
3. Use the ‘responsibility to protect’ doctrine to address the protection of essential water services.

4. There was also a call for elevated enforcement mechanisms, potentially involving UN Charter - Chapter 7 measures, to effectuate substantial change.

Proposed actions and strategies

The key recommendations drawn from the discussions in this session include:

- Reinforcing existing legal frameworks and bridging the gap between law and its practical implementation.
- Advocating for enhanced training for militaries, practical guidelines for armed forces to ensure better national implementation.
- Awareness creation on the importance of protecting water and water infrastructure during conflicts, including understanding and addressing reverberating effects.
- The need for international cooperation for effective implementation of legal frameworks to protect water infrastructure during armed conflicts.

3.3 What are the challenges in implementing and enforcing existing legal frameworks?

The third session addressed the implementation and enforcement of the legal frameworks, particularly IHL, for the protection of civilians in relation to armed conflicts. Implementation encompasses the practical application of IHL rules and principles by states, non-state armed actors, and relevant entities. It involves integrating these principles into domestic laws, conducting thorough training and dissemination initiatives, and establishing measures to put the law into effect during both peacetime and wartime. Enforcement mechanisms involve investigating breaches, holding perpetrators accountable through legal proceedings, and imposing penalties for violations. Both implementation and enforcement are essential for fostering respect for IHL during armed conflicts and mitigating the suffering of civilians and combatants. The participants emphasized that the main responsibility for executing and enforcing international law lies with states, and international bodies are there to complement and support their efforts.

Discussions on international normative and institutional mechanisms

Implementation and enforcement of general public international law mechanisms mainly depend on reciprocity and goodwill of states. Simply put, reciprocity, traditionally considered as a foundation of international law, illustrates the

synallagmatic nature of the respective rights and duties between two or more parties, and gains commensurable with the burden undertaken as well as the legal consequences resulting from such a legal relationship. It has a critical role in the effectiveness of international law in the current decentralized system.

The Geneva Conventions emphasize in common Article 1 that the High Contracting Parties undertake to respect and ensure respect for the Conventions ‘in all circumstances’. The obligation to respect and ensure respect for IHL law does not depend on reciprocity.⁴⁴ Respect for treaties of a ‘humanitarian nature’ cannot be dependent on respect by other state parties.⁴⁵ Besides, most rules of IHL have a *jus cogens* character⁴⁶ and they are intransgressible.⁴⁷ Related to this concept, reprisal, which was traditional method of enforcement, directed at protected persons or protected objects is prohibited.⁴⁸ Among international mechanisms under IHL are Protecting Powers and their substitutes. A Protecting Power, typically a neutral third state, oversees compliance with IHL.⁴⁹ In addition, the ICRC, mandated under the Four Geneva Conventions, endeavours to prevent suffering by promoting and strengthening IHL and universal humanitarian principles.⁵⁰ The ICRC’s statutory mission to promote and supervise respect for IHL has been central to its work, including elaborating and clarifying IHL. Additional Protocol I further established the International Fact-Finding Commission, encouraging states to avail themselves of its services.⁵¹

Driven by its objectives and purposes, the UN is empowered to oversee IHL adherence. A distinctive form of IHL implementation emerges through the system of collective security, where the UNSC operates under Chapter VII of the UN Charter. Recognizing IHL violations as threats to global peace and security, the UNSC has actively enforced IHL. It has established criminal tribunals, and has issued resolutions and sanctions demanding compliance with IHL standards.⁵² In relation to the armed

⁴⁴ ICRC, Customary IHL, [Rule 140](#).

⁴⁵ See Vienna Convention on the Law of Treaties, Article 60(5).

⁴⁶ See ILC Articles on State Responsibility, commentary to Article 40, §5; and Prosecutor v Kupreskic et al [2000], §§517-520.

⁴⁷ See ICJ, Legality of the Threat or Use of Nuclear Weapons (Advisory Opinion) 1996, §79.

⁴⁸ See ICRC Customary IHL, Rule 145. In other cases, it is allowed subject to the stringent conditions.

⁴⁹ However, owing to challenges in agreement among conflicting parties, the use of Protecting Powers has been infrequent.

⁵⁰ See, [The ICRC's mandate and mission](#).

⁵¹ Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts, 8 June 1977, Article 90.

⁵² For instance, it established the International Criminal Tribunal for the former Yugoslavia (ICTY) and the International Criminal Tribunal for Rwanda (ICTR) to address serious violations of IHL. It also played a role in establishing other special courts to deal with serious violations committed in specific contexts of armed conflict.

conflicts in Syria, the UNSC passed resolutions condemning specific actions and authorizing humanitarian aid. Similarly, in the aftermath of the Iraq-Kuwait war, the UNSC created the United Nations Compensation Commission (UNCC) with a mandate to process claims and pay compensation for losses and damage, including environmental damage. Moreover, the UNSC has played a role in transferring cases to the International Criminal Court (ICC) - the Darfur conflict in Sudan (2005) and NIACs in Libya (2011) with the view to holding perpetrators accountable through established legal mechanisms.

Similarly, the UNGA has established mechanisms to document violations (e.g., International, Impartial and Independent Mechanism (IIIM) – Syria 2016).⁵³ The Secretary-General has also, for example, appointed an independent inquiry into the action of the UN during the 1994 genocide in Rwanda. Likewise, the International Court of Justice (ICJ) has been instrumental in elucidating IHL obligations and defining state responsibility within armed conflict scenarios. For instance, the *Wall Advisory Opinion*⁵⁴ provided critical insights into IHL obligations related to the construction of the wall in the occupied Palestinian territories. The landmark cases, such as the *Democratic Republic of the Congo (DRC) v. Uganda*⁵⁵ and the *Nicaragua case*⁵⁶ have contributed significantly to defining and delineating the responsibilities of states involved in armed conflicts. In its Advisory Opinion on the Legality of the Threat or Use of Nuclear Weapons, the ICJ underscores the importance of considering environmental factors in implementing the principles and rules of the law applicable in armed conflict.⁵⁷ These judicial pronouncements serve as essential references in interpreting and reinforcing the legal frameworks in times of armed conflicts.

In addition, the role of the ICC was examined. Established by the 1998 Rome Statute, the ICC possesses jurisdiction over the most severe crimes, which is crucial in holding individuals accountable for their actions. Participants highlighted the role of the court in enforcing international criminal responsibility, particularly concerning serious violations, such as starvation and other war crimes. In a groundbreaking move, Ethiopia and Eritrea established a precedent by mutually agreeing to establish

⁵³ Syria, IIIM.

⁵⁴ ICJ, [Legal Consequences of the Construction of a Wall in the Occupied Palestinian Territory](#), Advisory Opinion, 9 July 2004.

⁵⁵ ICJ, [Armed Activities on the Territory of the Congo \(Democratic Republic of the Congo v. Uganda\)](#), Judgement, 19 December 2005.

⁵⁶ ICJ, [Military and Paramilitary Activities in and against Nicaragua \(Nicaragua v. United States of America\)](#), Judgement, 27 June 1986.

⁵⁷ ICJ, [Legality of the Threat or Use of Nuclear Weapons](#), Advisory Opinion, 8 July 1996, § 33.

a claims commission under the aegis of the Permanent Court of Arbitration.⁵⁸ This unique legal forum was asked to address alleged IHL violations. It was underscored that this signifies a historic occasion where states bring matters related to IHL before a quasi-judicial body, facilitating the clarification of allegations of violations. Participants indicated that this precedent could serve as a valuable approach in future instances of serious allegations of violation of IHL between parties engaged in armed conflict. Other organizations, such as the EU and the Organisation for Security and Cooperation in Europe (OSCE) are also deploying different kinds of fact-finding commissions of their own and using diplomatic measures to encourage compliance with international law.

Discussions on the national implementation

During the discussion particular attention was paid to IHL-specific mechanisms. The primary responsibility for implementing and enforcing IHL, derived from treaties and customary international law, rests with states. Crucially, for international principles and norms to hold weight, they must be operationalized at the domestic level. The mechanisms designed for IHL implementation encompass several critical dimensions. During peacetime, states are obligated to integrate international law into domestic legislation, particularly in the case of dualistic states. They are required to translate these laws into the national language(s) for comprehensive understanding and enforceability. Equally important is the establishment of criminal legislation to prosecute those responsible for ‘grave breaches’ – which are war crimes. Further obligations include identifying and safeguarding individuals, properties, and sites specifically protected by IHL from harm, along with disseminating IHL comprehensively among both the armed forces and the general population. States must also consider IHL principles when selecting military sites and developing new weaponry or warfare methods. Moreover, they are expected that qualified personnel in IHL, particularly legal advisers within the armed forces, are appointed and trained for its application. Participants gave examples of actions taken by states to facilitate the implementation of IHL and streamline efforts in this domain, including establishing national committees on IHL.

Article 87 of Additional Protocol I directs its provisions to member parties and conflict parties, mandating them to instruct military commanders to take measures to

⁵⁸ See [Agreement between the Government of the State of Eritrea and the Government of the Federal Democratic Republic of Ethiopia](#), (12 December 2000) and Permanent Court of Arbitration, [Eritrea-Ethiopia Claims Commission](#).

prevent violations, initiate disciplinary or penal actions against violators, and report any breaches of the Geneva Conventions and the Protocol to the relevant authorities. This command responsibility placed upon military commanders serves as a pivotal mechanism to enforce IHL obligations within their command structures. Furthermore, parties engaged in a conflict are required to proactively prevent violations of IHL. In cases where violations occur, they are obligated to conduct thorough, prompt, and effective investigations. If found warranted, they must prosecute individuals responsible for these violations, ensuring accountability and upholding the principles of IHL.⁵⁹ These measures collectively aim to uphold the integrity of IHL and hold accountable the perpetrators.

Key points that stand out from the discussion

A prevailing viewpoint suggests that effective implementation and enforcement of the current legal frameworks could significantly improve the situation. The participants recognized the gap between what is on paper and what happens in practice. Preparing states and militaries during peacetime received significant attention. It is imperative to not solely discuss legal obligations but also provide evidence-based knowledge, leveraging expertise from subject matter experts and engineers (e.g., create ‘case studies’ for scenario-based training, demonstrating how reverberating effects can be prevented). This practice strengthens the understanding of obligations and the tangible impacts of attacks or damage to water infrastructure. It is also indicated that conducting after-action reviews allows for critical reflections on mistakes made and identifying areas needing improvement. The military often operates under time constraints and focuses primarily on warfighting, sometimes overlooking the broader impact on civilian populations and could consider ‘the cause’ to be more important than any other human values. Thus, prioritizing engaging militaries to bolster water and infrastructure protection is crucial, even though our priorities may not align directly with theirs. Building a culture of compliance through awareness, training, and robust reporting and monitoring mechanisms are deemed essential.

Emphasizing the urgency, participants also called for clarifying ambiguous areas within the legal frameworks mentioned above and establishing clear guidelines to strengthen protective measures. For instance, in relation to the protection of the natural environment under IHL, some challenges were mentioned, including the

⁵⁹ See Penal sanctions provisions of the four Geneva Conventions of 1949, Articles 49, 50, 129 and 149, respectively; and Article 85 of Additional Protocol I.

stringent requirements outlined by IHL and disagreement about the customary status of international law prohibitions, particularly in NIACs. Besides, operational hurdles, such as restrictive interpretations of rules, have posed challenges, influencing permissive views that hinder humanitarian efforts. In illustrating practical examples, the Ukraine conflict in Donbas showcased how water became a pivotal factor in negotiations, driving parties to the table due to the necessity to resolve infrastructure-related issues.

In examining ways to bolster protection and enforcement systems, accountability and penal sanctions were highlighted as vital elements in deterring violations. Strengthening accountability measures was deemed essential, yet challenges persist in bringing cases to court, ensuring fair compensation, and determining responsibility amid complex conflicts. The discussion underscored the critical role of political will in initiating investigations and prosecutions, particularly concerning international mechanisms like the ICC's investigative scope, reflecting challenges in pursuing actions against both state and ANSAs.

In contemporary armed conflicts, violations often dominate the headlines, and a substantial adherence to IHL remains largely unreported. This discrepancy between public perception and the actual observance of IHL undermines its implementation. When states face allegations of misconduct, the participants of the workshop underscored the need to conduct comprehensive and transparent investigations. Such transparency is pivotal in showcasing a genuine commitment to upholding IHL, building trust not only with adversaries but also with the global community. It is also crucial in demonstrating the indispensable role that IHL plays in alleviating the devastating impact of armed conflicts. Encouragingly, the ICRC has initiated a laudable endeavour to document and discuss instances where IHL is being upheld, marking a positive stride towards recognizing and acknowledging compliance. The '*Study of National Legal Frameworks Related to the Protection of Water During Armed Conflicts*'⁶⁰ conducted by Geneva Water Hub has also documented positive examples of legislative measures and good practices pertaining to the protection of water.

The discussions further accentuated the role of international bodies and mechanisms, including UN Charter and treaty-based human rights bodies, in the implementation and enforcement of international law. UN Commissions of Inquiry and Fact-Finding

⁶⁰ Geneva Water Hub, [A Study of National Legal Frameworks Related to the Protection of Water During Armed Conflicts](#), 2023.

Missions have been instrumental in monitoring, investigating, and addressing violations related to human rights and IHL.⁶¹ An insightful query was made regarding replicating implementation mechanisms similar to human rights mechanisms. It was pointed out that replicating such mechanisms within IHL is challenging due to the dependency on state consent, which can be elusive. While mechanisms akin to those found in human rights law might not directly apply, there is still room for exploring and enhancing strategies that encourage compliance with IHL standards.

Finally, beyond legal mechanisms, various non-legal factors were said to significantly influence compliance with IHL. These include military interest in maintaining discipline and efficiency, public opinion, ethical and religious considerations, positive reciprocity, and the pursuit of lasting peace all play roles in upholding IHL.

The discussion pinpointed the following five primary challenges, in no particular order:

1. Complexity related to urban warfare

Urban conflicts present a complex scenario where civilian objects, like power plants serving both civilian and military purposes (described as ‘dual-use’ objects), blur the lines of targetability. Applying IHL principles such as distinction, proportionality, and precautions in this context becomes delicate. For some, a ‘dual-use’ object in its entirety (all the components thereof comprise an integral whole) becomes a military objective and the attacker need not consider damage to such an object in the proportionality and precautions in attack assessment. Others suggest that though a ‘dual-use’ object is a military objective, the impact of the attack on the civilian part or component and civilian use or function of the object must be taken into consideration in the assessment of proportionality. In addition, the interconnectedness of essential services and the potential reverberating effects also make effective implementation of the conduct of hostilities rules in urban warfare very challenging. Attacks against objects indispensable to the survival of the civilian population and against works or installations containing dangerous forces, such as nuclear power plants, as seen in incidents on the Zaporizhzhia Nuclear Power Plant and the Kakhovka Dam could release dangerous forces, causing severe civilian losses and catastrophic impact on the environment. Such attacks create significant legal, ethical and practical challenges.

⁶¹ See, International Commissions of Inquiry, Fact-finding Missions: [Chronological list](#).

2. Impacts of protracted armed conflicts

The second implementation challenge discussed relates to the impacts of protracted armed conflicts, that often heavily impact civilian lives, humanitarian aid, and degrade critical civilian infrastructure such as electricity, water, and sewage systems, leading to disruptions in essential services, starvation, diseases and mass displacement. Participants also noted that understanding the survivability needs of populations within conflict zones is challenging yet essential. The ICRC has been reporting an increase in attacks against water systems and infrastructure and underscored that having access to freshwater is increasingly a matter of survival.⁶² Protracted conflicts also make water system maintenance and repair very difficult, if not impossible. Discussions also touched upon the financial challenges, citing the impacts of sanctions and other economic factors.

3. Lack of effective implementation of the existing laws

Participants also highlighted that the lack of effective implementation of the existing laws represents a significant hurdle to the protection of water resources and water infrastructure. It was indicated that there is a discernible mismatch between the law and its actual implementation on the ground. At times, there is also a discord between political directives and military operations.

4. Gaps and unclarities within the legal frameworks

The third challenge highlighted gaps and unclarities within the legal frameworks mentioned above. Participants emphasized the need to fill the gaps and develop clear guidelines on issues related to dual-use objects, cumulative harm to civilians and damage to civilian objects, the scope of protection of the environment in NIACs and regulating cyberspace.

⁶² See e.g., ICRC, 'Having Access to Water Is Increasingly a Matter of Survival in Conflict Zones', 21 March 2022.

5. Challenges related to ANSAs

Lastly, a critical challenge concerns ANSAs, emphasizing their proliferation, diverse alliances, and sub-groups. This proliferation poses significant implementation hurdles by complicating the classification of conflicts, identification of conflict parties, and the enforcement of obligations. It is crucial to ensure their compliance with IHL and international norms, especially when these actors assume control of territories or participate in armed conflicts.

Proposed actions and recommendations

- Continuously working on strengthening legal protections and addressing gaps and uncertainties in existing legal frameworks, including the issues of dual-use objects, reverberating effects and cumulative harm and damages.
- Consistently remind states and parties involved in armed conflicts of their obligations.
- Dissemination of IHL rules, engaging militaries, enhancing training and promoting culture of compliance and sharing lessons learned. Also ensure transparent communication with political and military entities to explore innovative strategies to ensure the protection of essential services for civilian populations in conflict zones.
- Improve documentation of impacts of military operations, and empower monitoring, reporting and accountability mechanisms, including through the UNSC, ICJ, human rights bodies and ICC.
- Address practical challenges, such as difficulties in applying rules in the fluid and unpredictable context of armed conflicts and bridge the credibility gap to bolster respect for IHL by aligning legal expectations with realistic capabilities and avoiding overpromising. Also, address capacity constraints of weaker states and the reluctance of ANSAs in asymmetric warfare. There was a proposal to retain neutrality of private water companies to ensure continued service provision even during armed conflicts.
- Bridging this credibility gap is crucial. Public perception often shaped by media frequently casts IHL violations as systematic. This, if not tackled, will erode respect for IHL.
- Establishing mechanisms for ongoing international cooperation creates a platform for sharing recommendations and good practices, essential for advancing global protection under IHL.

3.4 How can we strengthen the system of protection to address the far-reaching impacts of armed conflicts?

The two final sessions of the workshop were dedicated to group discussions, participants discussed ways to strengthen the role of law in addressing the reverberating impacts of armed conflicts and other situations of violence on freshwater, water-related installations, and other essential services. The first group discussion delved into legal, institutional and policy measures that need to be taken into account to achieve a better respect of rules at the national and international level to address the enduring effects of armed conflicts on freshwater, water-related infrastructure and essential services. This section highlights the common themes that emerge from the discussions of each group.

What measures could enhance better protection?

- Strengthening legal frameworks. Strengthening and cultivating culture of compliance. Advocate for the universal application of IHL to all conflicts. Establishing a designated water protection symbol and advocating for a UN resolution, a treaty or a political declaration on sparing water from armed conflicts. Work towards a specific treaty on the protection of water to break silos by harmonizing different branches of international law.
- Promote better urban planning to include redundancies and mitigation measures.
- Acknowledge the importance of well-trained, informed, and capable militaries. Involve legal and technical advisors in decision-making. Enhance specialized and innovative training for militaries. Incorporate scenario planning for conflict impact and response, including during threat analysis and developing collateral damage matrices with reverberating effects.
- Raise awareness during peacetime on the direct and indirect impacts of armed conflicts on freshwater and water-related infrastructure. This also includes inclusive discussions with diverse actors and information sharing to enhance evidence-based decision-making, conducting after-action reviews to capture lessons learned, and collaboration between militaries and political leaders, experts from different sectors and intelligence actors for enhanced water protection.
- Enhance monitoring, documenting, reporting and accountability. Promote the positive impact of modern technology on water protection efforts and utilize open-source data for reporting. Advocate for changes in existing practices to

ensure accountability for water-related violations and environmental crimes and strengthen command responsibility.

There were a few outliers mentioned in the discussions, including establishing an international water court, and a compensation fund/mechanism. The latter was in particular described as ‘compelling and timely issue’. In this regard, there was also a suggestion to freeze the assets of belligerent states for compensation and reconstruction efforts.

The following Table encapsulates the key recommendations delivered by each group to the plenary session.

Groups	Key triggers for better protection	Guiding questions	
		Water in planning and execution of military operations	Reporting and accountability mechanisms
	<ul style="list-style-type: none"> ■ Increased culture of respect for and compliance with IHL. ■ Designated water protection symbol- (maps, intelligence sharing). ■ Better urban planning – build in redundancies, mitigate and lay down to inform planning. ■ Involving legal and technical advisors in the decision-making processes on targeting. ■ Possibly a declaration on sparing water in armed conflicts or a specific treaty on the subject. 	<ul style="list-style-type: none"> ■ Information sharing, pre-war, and how it informs the planning of military activities and affects future reconstruction, repairs etc. ■ Militaries and intelligence actors work together to enhance the protection. ■ Scenario planning for conflict impact and response (repair and maintenance), including during threat analysis process. ■ After-action reviews to harness lessons and encourage the exchange and transmission of those lessons. 	<ul style="list-style-type: none"> ■ Leverage open-source data. ■ Enhanced internal accountability mechanisms. ■ Changes in existing practice of ensuring accountability. ■ Fact-finding mechanism to enhance accountability. ■ Device mechanism of accountability during joint military operations, ■ Leveraging the influence of multilateral bodies on ensuring accountability.

Groups	Guiding questions		
	Key triggers for better protection	Water in planning and execution of military operations	Reporting and accountability mechanisms
	<ul style="list-style-type: none"> ▪ Making IHL universal and applying to all conflicts (same rules for IAC and NIAC). ▪ Specialized and innovative training. ▪ Make it a top-down priority. ▪ Breaking the silos – harmonization of different branches of international law. ▪ Bringing around the table actors like Russia, and China that may often be left out of IHL discussion. 	<ul style="list-style-type: none"> ▪ Involving experts from different sectors and ensuring that decision-makers are involved as well. ▪ Training on non-negotiable basis should be given to different commanders and the army. 	<ul style="list-style-type: none"> ▪ Making sure that States ratify the Rome Statute. ▪ More documentation and research – for evidence-based decisions, and lessons learned for future conflicts.
	<ul style="list-style-type: none"> ▪ Better training for soldiers on IHL. ▪ Common understanding of the importance of protecting water-related infrastructure. ▪ Creating awareness on how conflict and environment interact. 	<ul style="list-style-type: none"> ▪ Raising awareness to change behaviours. ▪ Political declaration on the protection of water (similar to PERAC?) 	<ul style="list-style-type: none"> ▪ Strong national judicial systems to monitor and prosecute everything related to water. ▪ Universal jurisdiction, including for environmental crimes.

Groups	Guiding questions		
	Key triggers for better protection	Water in planning and execution of military operations	Reporting and accountability mechanisms
	<ul style="list-style-type: none"> Climate change impacts and disasters (e.g., outbreak of water-related disease) and water scarcity. Better integration of IHL in domestic norms. Improved training of ANSAs. The positive impact of modern technology. 	<ul style="list-style-type: none"> Improve collateral damage matrix (guidelines) with reverberating effects. Declaring all water installations as objects containing dangerous forces, marking them as protected objects like hospitals. Price of violating the prohibitions is too high. 	<ul style="list-style-type: none"> Ensure that both state responsibility, and individual accountability. Strengthen command responsibility. More convictions will lead to decrease in violations. Create compensation mechanisms Ensure that international human rights mechanisms enforce the protection of the human right to water.

3.5 What are the key areas of action for the Alliance to spare water from armed conflicts?

During the second session, the discussions focused on pinpointing primary action areas for the Alliance to protect water from the impacts of armed conflicts. The result of the discussions is presented under the following five themes: the scope and governance of the Alliance, knowledge production and dissemination, diplomacy and advocacy, partnerships and outreach, and accountability. Each theme provides a framework with detailed activities.

A) Scope and governance of the Alliance

- Institutionalize the alliance–secretariat and ensure sustainability. Define the members, the structure, priorities, and identify different work streams.
- Make the Alliance – more global and spread activities to other continents.
- Thematic working groups for evidence collection and policy developments.
- Define key moments for the Alliance to operate.

- Multi-level stakeholders reference groups (national, regional and international); military, civilian, law, etc.
- Engagement with affected communities and population (people-centred approach).
- Use a regional approach as the entry point to obtain a political declaration, a treaty or a UN resolution.
- Carve out space for water with a PR campaign.
- Systematic repetition of the message that states are responsible for ensuring respect for IHL- campaign, ambassadors, country delegations.
- Link to other Alliances.
- Advocacy with the Group of Friends (in Geneva and New York), with states and civil society organizations.
- Explore the role of the private sector and involve them in discussions.

B) Knowledge production and dissemination

- Communicating research products to create visibility and awareness that drives debates.
- Preparing case studies for training.
- Include environmental data in conflict analysis across the UN System, and into briefings.
- Gather lessons learned (good and bad practices) from water (non)protection in conflicts.
- Funding for academic research on climate, water and conflict.
- Tool kit to facilitate implementation of new policies (knowledge production).
- Ensuring the availability of data, information and analysis to institutions and governments.
- Localization of research, advocacy, training on water, conflict and climate.

C) Diplomacy and advocacy

- Start with national legislation as an entry point.
- Include protection of water in armed conflict in UN strategy on water.

- Support the quick appointment of the UN Special Envoy for water and advocate for the inclusion of water and conflict in the mandate of the Special envoy for Water.
- Push for water and IHL in the next UN Water Conference
- Utilize the existing mechanisms – e.g., periodic review (SGDs, strategies); Human rights council to focus on protection of water, group of states should raise the issue, and the Alliance could hold a special session with stakeholders.
- Connect water with climate debate and other processes (e.g., Triple Nexus) , always linking the local, regional and global perspectives.
- Further globalization of the 1997 Watercourses Convention.
- Work towards a convention on the protection of water in armed conflicts (human- rights based) and positioning water as global common.
- Include the temporary provision of essential services into the mandates of UN Peacekeeping missions. Advocate the UNSC member states.
- Include water issues in the Political declaration – EWIPA- under the strategies for implementation.

D) Partnerships and outreach

- Develop and promote partnerships within and outside the Alliance, with key stakeholders and with other “coalitions” such as with the “Call to Action” and EWIPA.
- Facilitate exchange of knowledge expertise among the partners of the Alliance.
- Closed intergovernmental panel discussion(s) (“safe space for States”), to be held in selected informal settings (e.g. by adopting the Chatham House Rules) and neutral locations, aimed at sharing, reflecting on the replicability, and analyse the most successful water protection practices already implemented at the national and local levels by different public actors.
- Considering their declared objectives and the different needs of governments, therefore, the panels shall focus on examining the existing strategies in the fields of preliminary risk assessment, preventive and resilience-building measures to avoid water service disruptions in the event of a crisis (as, for instance, armed conflict, natural disasters, other), immediate responsive measures, as well as many other related subjects.
- Develop a platform to discuss and promote exchanges of views through a series of events and training in the fields of preliminary risk assessment, preventive and

resilience-building measures to avoid water service disruptions in the event of a crisis (as, for instance, armed conflict, natural disasters, other).

- Reach out through the academia – include the protection of water in university courses.

E) Accountability

- Start preparing cases on violations related to water to start building precedents.
- GWH to organize a follow-up focused workshop on accountability.
- The notion of accountability did not reach a consensus with a mention that it should not be the main priority as it is very extensive and involves a lot of issues (including clear accountability line) and could take quite some time to resolve. While for others urgent actions are needed to take precedence over structural considerations, though some actions are already embedded within governance frameworks. A step-by-step approach is advocated, aligning structure with content rather than the reverse.



4. The Way Forward: Forging a Shared Vision within the Alliance

The workshop highlighted the crucial imperative for safeguarding water resources and infrastructure in armed conflicts. Despite existing international rules, participants emphasized the urgency of collective efforts to address gaps and mitigate the consequences of armed conflicts on civilian populations. Challenges persist due to a lack of awareness, inadequate military training, and the complex nature of conflict situations, leading to the ongoing targeting and damage of water resources and infrastructure. The discussions highlighted the intricate connections between legal frameworks, operational strategies, and grassroots engagement, underscoring the need for comprehensive approaches.

The participants embraced establishing the Global Alliance to safeguard water from armed conflicts and pinpointed key areas for its activities. The launch of the alliance is proposed to coincide with significant events such as the Protection of Civilians Week in New York, extending its reach to other global regions.

Participants shared a common vision and underlined the urgent need for the following key points:

1. Strengthening the legal frameworks by filling gaps, clarifying uncertainties, and developing water-related standards, including initiating a collaboration to develop a UN resolution, an inter-governmental political declaration or a treaty to spare water from armed as well as a deed of Commitment for ANSAs. Also, pushing for the inclusion of the protection of water in the mandates of peacekeeping missions.
2. Identify and address hurdles in implementing current legal frameworks related to freshwater and water infrastructure, including creating a deeper understanding of the impacts and long-term consequences of attacks on water infrastructure, including reverberating and cumulative impacts, on the livelihoods of civilian population, public health, societal instability, displacement and the environment.
3. Provide training and encourage evidence-based decision-making, policy formulation, and advocacy to spare water resources and infrastructure from

armed conflicts. Also, ensure knowledge exchange, sharing best practices and lessons learned.

4. Ensure pre-conflict preparedness to shield water infrastructure and essential services, incorporating resilience-building measures and awareness campaigns.
5. Enhancing mechanisms for monitoring, data gathering, reporting and ensuring accountability for violations. In this regard, it is necessary to address political reluctance (raising water protection to the highest political levels).

The following recommendations were indicated as focus areas for the Global Alliance:

1. Establish a dedicated secretariat and expand its reach and impact globally.
2. Engage in knowledge development on the direct and indirect impacts of armed conflict and communicating research findings, developing case studies, and toolkits for training.
3. Developing standards to better protect freshwater and water infrastructure and analyse the possibility and impact of initiating a process for a UN resolution, an inter-governmental political declaration or a treaty.
4. Enhanced water protection through collaborative efforts and impactful advocacy. This involves creating secure spaces for discussions at the highest political levels, forming partnerships, facilitating exchange through events and training, and engaging academia, international organizations and NGOs. Additionally, connect water and sanitation issues with climate debates and work towards including water data in UN conflict analyses.
5. Engage with affected communities, documenting experiences and initiating capacity-building initiatives for resilience.
6. Contribute to the efficacy of monitoring, documentation, reporting, and accountability for incidents involving attacks on or damage to water infrastructure. Consider organizing a specialized workshop on accountability and preparing cases related to water violations to establish precedents. Acknowledge the intricacies of accountability and advocate for a methodical, step-by-step approach.

5. Annex I: List of workshop participants

No.	Family name	First name	Organization
1	ACOSTA LAZO	Maria Jose	OHCHR
2	BERUTO	Gian Luca	International Institute of Humanitarian Law
3	BONUEDIE	Geoffrey	Ghana Armed Forces
4	BÜNZLI	Marc André	Swiss Agency for Development and Cooperation, Federal Department of Foreign Affairs, Switzerland
5	BUSINGYE	Godard	Ouganda armed forces
6	COTTRELL	Linsey	Conflict and Environment Observatory
7	DEVINE	Anna	Directorate of International Law, Federal Department of Foreign Affairs, Switzerland
8	DONATI	Federica	OHCHR
9	LLOYD	Marnie	Norwegian Red Cross
10	EYRARD	Julien	Action Contre la Faim
11	FOGT	Morten	Multinational Division North Adazi Military Base and Aarhus University
12	GIMIGLIANO	Edoardo	International Institute of Humanitarian Law
13	GRASEK	Mateja	Ministry of Foreign and European Affairs, Slovenia
14	HÄFLIGER	Alexandra	UNSC Section, Federal Department of Foreign Affairs, Switzerland
15	JARA	Diego	International Union for the Conservation of Nature
16	KAELIN	David	International Committee of the Red Cross

17	MIKSOVA	Tanja	Ministry of Foreign and European Affairs, Slovenia
18	M. FIGUEIRIDO	Barbara	United Nations Institute for Disarmament Research
19	MAC CLINCHY	Wendy	Center for Civilians in Conflict
20	OBRESTAD	Kristin	Norwegian People's Aid
21	ORT	Caroline	TRIAL International
22	PARANDII	Christina	PAX
23	PERSI VICENTIC	Loren	Explosive Weapons Monitor/Article 36
24	PERTILE	Marco	University of Trento
25	PIERREHUMBERT	Guillaume	International Committee of the Red Cross
26	PRADAT-PAZ	Solène	Partenariat Français pour l'Eau
27	RADAELLI	Chiara	Diakonia
28	RAMOS	Monica	Global WASH Cluster, UNICEF
29	RUECK	Johannes	German WASH Network
30	SCHILLIGER	Juliane	University of Twente
31	SIDER	Rachel	Interpeace
32	SINIGOJ	Miha	Ministry of Foreign and European Affairs, Slovenia
33	THÖLE-ARCHIMI	Janique	Directorate of International Law, Federal Department of Foreign Affairs, Switzerland
34	ZEITH	Abby	International Committee of the Red Cross
35	ZWIJNENBURG	Wim	PAX

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Photo p. 7: Floating sludge at final effluent on iStock photos.

Photo p. 10: Vokuvar water tower © Wolfsburg1984 on iStock photos.

Photo p. 41: Palestinians search a house after an Israeli air strike, in the city of Rafah, southern of the Gaza Strip, on October 15 2023 © Anas-Mohammed on Shutterstock

