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United Nations University Institute for Water, Environment and Health (UNU-INWEH)
Richmond Hill, Ontario, Canada

Correspondence to: R Ramchandani
rohit.ramchandani@unu.edu

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Water rarely starts wars, but wars increasingly damage water systems

Attacks on water systems are attacks on health systems, and should be counted, contested, and prepared for as such, argue Rohit Ramchandani and colleagues

Rohit Ramchandani, Saverio Bellizzi, Carmen H Logie, Osama Ali Maher, Kaveh Madani

In 1995 Ismail Serageldin of the World Bank predicted that "the wars of the next century will be fought over water."[1] Three decades on, the forecast has not quite come true. Serageldin himself now locates the risk within states, more so than between them.[2] Water scarcity seldom starts wars, but it can compound grievances that weak institutions leave unresolved. War, in turn, degrades the water systems on which health and recovery depend, entrenching the fragility that reproduces violence. This is a mutually reinforcing cycle. Without water there is neither health nor durable peace. Without peace, water is never secure.

Water compounds conflict but is seldom the only cause

Syria's 2007-2009 drought is often invoked as the trigger of the 2011 uprising. Satellite, meteorological, and field data tell a different story. Agriculture rebounded strongly in 2010, and pre-war migration was largely internal, temporary, and adaptive.[3] Vulnerability had accumulated over decades of water-intensive, subsidised farming, weak water governance, and abrupt subsidy withdrawal. It was the war, more than the drought, that converted adaptive mobility into mass forced displacement.

Lake Chad, in the Sahel region of West Central Africa, contracted by up to 90% between the 1960s and 2000, yet violence escalated after 2010, even as water levels were stabilising.[4] Of 1831 recorded interactions over shared rivers between 1948 and 1999, two thirds were cooperative and none was a declaration of war.[5] The danger lies less in scarcity itself than in how its costs are distributed. As freshwater systems slide towards bankruptcy, grievance deepens when "the burden of adjustment falls on those with the least power."[6]

War makes water a casualty, in fragile and wealthy systems alike

The Pacific Institute logged 420 reported water related violent events in 2024, 78% more than in 2022. Sixty-one per cent were attacks on water infrastructure.[7] Within months of Russia's full scale invasion of Ukraine, six million people struggled daily to obtain drinking water, and the World Health Organization (WHO) warned of cholera in Mariupol as sewage entered drinking supplies.[8] The destruction of the Kakhovka dam in June 2023 killed at least 62 people, displaced up to 100 000, and cut off irrigation that had supported harvests worth about $1.5bn (£1.13bn, €1.34bn).[9]

The 2026 war involving Iran carried this threat to the Persian Gulf, where about 100 million people rely on desalinated water.[10] Iran said a US strike on one of its desalination plants had cut water to 30 villages on Qeshm Island. A day later, Bahrain said an Iranian drone attack had damaged one of its plants.[11] In April, drones hit two of Kuwait's power and desalination plants.[12] In June, Iran claimed that the US had targeted two of its reservoirs in Sirik, supplying water to 20 000 homes. Water need not be targeted to become a casualty. After Israel's strikes on Tehran's fuel depots in March 2026, "black rain" raised concern that persistent hydrocarbons could contaminate soil and water storage serving more than 15 million people in a metropolis whose water was already overdrawn.[13]

From damaged infrastructure to health crisis

In Sudan, drone strikes on Omdurman's power plants in May 2025 cut electricity to Khartoum's water treatment stations. Cholera followed, with nearly 500 cases recorded in a single day.[14] Gaza shows the same sequence at scale, and how foreseeable it was. By January 2024, about 57% of water infrastructure had been destroyed or damaged.[15] Diarrhoea among children under 5 reached 136 400 reported cases within three months.[16] Even before October 2023, damaged plants discharged more than 100 million litres of largely untreated sewage into the sea daily, and samples free of *Escherichia coli* still carried resistant *Pseudomonas* and *Staphylococcus aureus*. Collapsed sanitation, overcrowding, and unregulated antibiotic use are expected to accelerate their spread.[17]

Across 16 protracted conflicts, children under 15 were almost three times more likely to die of diarrhoeal disease linked to unsafe water and sanitation than of violence.[18] Strikes on power, pumping, and treatment reach furthest.[15] Cutting supply can disable a hospital that no strike has touched.[19] As services fail and untreatable infections spread, trust in institutions erodes and recovery stalls, returning communities to the fragility in which violence recurs.[17]

Protecting water as a public health priority

Water insecurity in conflict is a public health emergency that can be counted, contested, and prepared for. Firstly, count attacks on water as health events. WHO's surveillance system for attacks on healthcare records harm to facilities, staff, and patients, but not to the water systems they depend on.[20] Extending it and adding water quality and antimicrobial resistance surveillance to health information systems would attribute cholera, resistant infections, and child deaths to the attacks that cause them.

Secondly, recognise water systems as critical health infrastructure. As civilian objects, they are already

protected. Additional Protocol I covers drinking water installations and dams,[21] and UN Security Council resolution 2573 (2021) condemns attacks on objects indispensable to civilian survival.[22] Yet these protections have not prevented repeated damage to water systems or harm to workers who maintain them. At least 35 water engineers have been killed or wounded in eastern Ukraine since 2014.[8] Given their critical role in health, water systems should be treated as health infrastructure in planning, protection, and reporting. Because lawfulness turns partly on foreseeable effects, documented harm to health is legal evidence, and health agencies should produce it.[15]

Thirdly, prepare health systems for water loss before it occurs. Prioritise conflict sensitive investment in resilient water and sanitation systems in fragile and conflict affected settings. Adaptation programmes rarely account for conflict,[23] and wealthy states can rebuild a plant within months where fragile ones cannot. With one in seven health facilities worldwide still lacking a basic water service,[24] backup supply, decentralised treatment, and management of hospital wastewater should come first where conflict and scarcity converge. [17 19] Preparedness must also reach people displaced when water fails, whose health needs are poorly anticipated,[25] through coordinated, gender responsive care that sustains maternal health services and protection from gender based violence. [26 27]

Water bankruptcy[6] does not make conflicts inevitable, but averting it requires honest accounting, fair renegotiation of claims, and sustained investment in peace and cooperative transboundary governance. The evidence rejects water as a sole cause of war, but as a target of war it shows a clear pattern. Attacking water is an attack on health, and attacking health undermines peace. Whatever starts a war, water must never become its weapon.

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