

Iran war's climate, environmental, and human security fallout

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OPINION

In a region already much affected by climate impacts and conflict dynamics, the continuation of the Iran war will reinforce their relationship and, in turn, result in serious humanitarian consequences.

Since the beginning of the US-Israeli strikes on Iran in late February, analysts and policymakers have focused their attention on the geopolitical, economic, and energy-related fallout that a prolonged conflict brings to the world. So far, the war in Iran has claimed the lives of soldiers and civilians, including more than 100 children killed in a US strike on an Iranian elementary school; disrupted economic systems, costing the United States \$2 billion each day; and shocked energy markets.

However, one of the war's most serious consequences is also one of its least reported. Whereas the true cost of the war is only beginning to be tallied, one thing is already clear: It is worsening the climate crisis and degrading human security in an already climate-vulnerable region. Yet most discussion has not centered around the environmental, climate, and human mobility implications of the conflict.

The onset of the new Iran war is expected to reinforce the threat-multiplying relationship between conflict and climate impacts, resulting in serious humanitarian consequences. These have led to displacement in the past, not only in the region but on a global scale. Here, we assess the different ways in which the conflict is exacerbating climate, environmental, and human vulnerabilities in West Asia, and how they could lead to increased displacement. This article looks at worsening water scarcity, threats to public health, exacerbated forest and farmland fires, increasing greenhouse gas emissions, and weakened state capacity as pressing consequences of renewed and increased conflict between parties in the Middle East.

Worsening water scarcity

The water resource situation in West Asia is already at a critical stage, with per capita water availability below the water stress threshold in the region. At the start of Operation Epic Fury, Iran and the Persian Gulf region had already been experiencing a climate-induced drought for more than five years. In neighboring Iraq, 2025 marked the worst drought on record since 1933. The Iran war is worsening this fragile context, with strikes targeting civilian and industrial infrastructure that includes oil facilities and chemical plants, releasing toxic residues that pollute waterways. This is of particular concern for Iran, where water resources had already been depleted by drought and mismanagement.

Since the beginning of the war, desalination plants have been struck and water reservoirs have been damaged. Last March, Iran accused the United States of attacking Qeshm Island and its desalination plant, which provides water for 30

villages. In June, Iran again announced that two of its water reservoirs had been targeted and damaged, causing thousands of people to lose access to drinking water; the Iranian government criticized American strikes as responsible for the worsening water situation in towns such as Jask and Sirik. Previously, attacks on water pipelines by Israel had also "decimated large sections of Gaza's water infrastructure."

Other civilian and industrial infrastructure has also been targeted. This includes attacks on oil facilities and chemical plants, polluting fragile waterways, which could lead to contaminated food, water, and air with severe health consequences for vulnerable populations, according to the World Health Organization (WHO).

These new attacks could exacerbate an ongoing climate displacement crisis. In southern Iraq, climate-induced water stress has already forced rural populations to move into cities. Many are now at risk of being displaced again, this time not by climate change but by conflict. And while data about displacement in Iran is limited, estimates suggest that at least tens of thousands of Iranians are internally displaced yearly by drought and other climate impacts, such as floods or land degradation. If access to clean water is deteriorated further — via increased attacks on desalination plants, for instance — even wealthy populations in the United Arab Emirates and Saudi Arabia would likely find their capacity to stay in their homes compromised.

Conflict-related threats to public health

Conflict-linked pollution in West Asia goes beyond the contamination of water resources. On March 7, 2026, air strikes hit four oil storage and refinery sites in and around Tehran. The strikes resulted in fires that produced a phenomenon referred to as "black rain": oil mixed with precipitation, impacting a metro area of 9–15 million people. The situation was so bad that the WHO issued a warning about dangerous air pollution following the strikes. The strikes caused air to be contaminated with sulfuric acid and trace metals. This has had direct impacts on public health, and residents reported experiencing headaches and breathing dif-

ficulties following the attack. Short-term exposure to black rain can also lead to eye and skin irritation and can exacerbate existing asthma and pulmonary conditions. And because the exact combination of contaminants is not known, the impacts of chronic and long-term exposure to contaminated soil, water, and crops are yet to be determined.

More broadly, the ongoing conflict has led to serious challenges to Iran's water, sanitation, and hygiene conditions, causing an elevated risk of respiratory infections, diarrhea, and other communicable illnesses, which disproportionately impact women and children as populations are displaced and people overcrowd shelters. More than 3.2 million people in Iran and up to 700,000 in Lebanon are estimated to have been internally displaced since the beginning of the war. In Lebanon, the WHO has pointed to heightened risks of cholera as well as measles, chickenpox, and scabies. And an increase in human displacement due to war has already contributed to a 25 percent gap in essential noncommunicable disease medicines (including insulin).

Though not directly related to climate change, the region's health care facilities have also experienced direct threats, with 18 verified attacks on health care facilities in Iran and 25 in Lebanon since February 28. Additionally, attacks on Iran's central vaccine production and epidemiological tracking hub have hobbled the country's ability to produce vaccines and monitor outbreaks. Damage to health care infrastructure is both direct and indirect, with power outages, fuel shortages, and staff displacement disabling medical care even in facilities that have remained out of the line of fire.

An additional public health impact of the ongoing conflict is the psychosocial toll and mental health consequences of the continued war. According to the WHO, in populations exposed to armed conflict, around 10 percent will develop serious mental health challenges and another 10 percent will develop mental health-related, functionally impairing behavioral changes. The impact is even worse on children, who experience disruptions to school, housing, and family stability that all serve as drivers for childhood anxiety, hyperactivity, and other mental health concerns that can persist well beyond the



Black smoke rises following US-Israel attacks targeting oil storage, including the Shahrin oil depot, in Tehran, Iran, on March 8, 2026.

FATEMEH BAHRAMI/AA



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A stray cat sits at the top of stairs that shows the aftermath of a dangerous "black rain" caused by US-Israeli air strikes on oil depots in Tehran, Iran, on March 8, 2026. The phenomenon is usually created by precipitations mixed with large amounts of soot, carbon and other pollutants in the air.

HADI ZAND/ISNA

end of conflict.

The impact of the conflict on public health is well documented and further exacerbated by the decline in humanitarian assistance globally. The eastern Mediterranean region was already home to nearly half of all people globally requiring humanitarian assistance before the conflict started. Furthermore, the WHO's own global logistics hub in Dubai faced disruption early in the conflict due to airspace closure, impacting its ability to distribute medical supplies to more than 1.5 million people across 25 countries.

Exacerbating forest and farmland fires

West Asia's arid conditions, which have worsened as a result of climate change, make it particularly vulnerable to forest and farmland fires. Conflict exacerbates the risk of fires, with Armed Conflict Location & Event Data recording almost 200 incidents of fires caused by attacks from Hezbollah or the Israel Defense Forces in Israel and Lebanon between October 2023 and July 2024. More recent attacks have particularly affected farmland, and the Lebanese Agriculture Ministry reported in late March 2026 that 22 percent of the country's cultivated land had been damaged in the previous month. This, combined with the worsened global fertilizer crisis caused by the closure of the Strait of Hormuz, could lead to disastrous food insecurity forcing populations to leave their homes. Wildfires in the region have also triggered more displacement in recent years, and this phenomenon can be expected to increase as conflict-related fires become more common.

Extreme climate variability in recent years has exposed the Middle East to increased fire risk occurrences, but 90 percent of fires are ignited as a result of anthropogenic factors like destructive land management practices and military activities. Burning farmland and economically essential crops in fertile hotspots is done for political gain during conflict across the Middle East, and because areas under conflict are less accessible, land management regulations are less enforceable.

Food systems that farmers rely on for self-sufficient livelihood are pressured by the weaponization of environmentally harmful contaminants as a conflict tactic. In summer 2026, Israel has turned to the use of white phosphorus and glyphosate in southern Lebanon to retaliate against Hezbollah's attack on Israel following Israel's assassination of Iran's leader. The displacement of farmers who can no longer work, along with significant chemical exposure, has halted 78 percent of agricultural activity in the region — a national hub for citrus, olive, and tobacco production. Lebanon's minister of environment has labeled attacks on her country's forests, agricultural lands, marine ecosystems, water resources, and atmospheric quality an "act of ecocide": the mass damage, destruction, or loss of ecosystems.

The use of agricultural herbicide and arson in cultivated land — including tear gas, which intensifies the spreading of fire — is also common in Palestine. Palestinian territories have seen an escalation in targeted infrastructure attacks since the