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# The Invisible Casualty of the Israel-Iran War

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## **The Invisible Casualty of the Israel-Iran War**

After the 12 days of conflict between Israel and Iran, there is hope that the fragile ceasefire will hold and halt the escalation of bloodshed and destruction. Both Iran and Israel have claimed victory in the war, warning they are ready to retaliate if the other strikes again. Regardless of who wins what on political and strategic fronts, the effects of this conflict, in particular, weigh heavily on the ecosystem and natural resources of the region.

War between Israel and Iran began on June 13, 2025, after Israel struck dozens of targets in Iran with the stated aim of destroying its nuclear program, primarily relying on air strikes through fixed-wing aircraft and drones. Iran responded by firing ballistic missiles and drones targeting military and energy facilities in Israel, with both sides suffering civilian casualties and damage to critical infrastructure. Yet the damaging effects of the conflict on the overall environment are precarious and threaten to exacerbate an already fragile ecosystem.

The entire West Asian region is facing numerous environmental challenges. Some are traditional, linked to water scarcity (the region is in fact the most water-scarce region in the world), land degradation, and desertification, as well as a lack of capacity linked to resource allocation and mismanagement. Other environmental challenges are emerging, including climate change, increased demand for energy, construction and demolition debris, and hazardous remnants of war.

### **Environmental Concerns**

One of the most significant risks of the recent war is pollution stemming from the contamination of water resources. In an already water-scarce region, this worst-case scenario would mean that pollution in nearby water would migrate, contaminating vast water resources and leaving them unsafe for human consumption. In terms of wider concerns about the extent of potential environmental damage incurred by the recent conflict, an initial assessment based on the above scope of the conflict and the weapons used warns of the following ecological damage.

#### **Damage Caused:**

##### **Risks and pollution as a result of the damaged military facilities**

When it comes to Iranian and Israeli military facilities--for instance, missile bases, airfields, and weapons storage and production sites--there is a wide range of potential environmental hazards. The specific types of pollution depend greatly on the types of weapons and activities at each site, but common pollutants include heavy metals, fuels, and various oils. The impact is not limited in terms of time and area, meaning the fallout could spread to a larger geographical area as a result of winds, for example. In addition, the remnants can linger, affecting the ecosystem for generations to come.

##### **Risks and pollution as a result of the damage to fossil fuel facilities**

Iran is a major oil and gas producer with large fossil fuel infrastructure, including oil refineries, storage and gas processing plants, and export terminals. These generate a wide range of pollutants, including particulate matter such as NO<sub>x</sub>, carbon monoxide, and sulphur dioxide, among others. All of these impact air quality, which can have severe consequences on human health. Iranian missiles hit an oil refinery, the Bazan Group complex, near Haifa, causing fires and pipeline damage, resulting in hazardous air pollution.



### **Risks and pollution as a result of the damage to infrastructure**

The damage to infrastructure, in both Iran and Israel, has led to hazardous air pollution stemming from the use of explosives and the destruction of building materials, which poses serious health risks to civilians. In urban areas, damage to commercial and residential buildings can release harmful airborne particles--from crushed construction materials to combustion products--creating significant inhalation hazards. The resulting health impacts can be severe, including respiratory illnesses, cardiovascular problems, and potentially even cancer.

#### **Potential Damage:**

### **Risks and pollution as a result of the destruction of nuclear facilities in Iran**

As Israeli strikes on Iran primarily target nuclear facilities, the most significant environmental risks are associated with potential damage to these sites. A radiological release could result in widespread contamination, affecting both terrestrial and marine biodiversity, as well as critical man-made infrastructure. Such an incident could render large areas of West Asia uninhabitable. Of particular concern is the Bushehr Nuclear Power Plant, located on the shores of the Arabian Gulf. Any radioactive release from this facility would pose an immediate threat to the Gulf's marine ecosystem and jeopardize regional water security, given that the majority of the Gulf Cooperation Council (GCC) countries' desalination plants are situated along the Gulf coast. Fortunately, such catastrophic nuclear pollution—whose consequences would extend beyond the Middle East to have global implications—has so far been avoided.

### **Conclusion**

The extent to which the Israel-Iran conflict harms the environment cannot be understated. The undeniable truth is that a region with an already fragile ecosystem and scarce natural resources has been further damaged, resulting in an “invisible casualty” whose loss will yield heavy consequences. With pollution leading to numerous serious health, economic, and social problems, much of this damage is of a permanent nature, and its long-term effects will ultimately be felt by future generations. While buildings can be rebuilt and military resources replenished, the ecological effects of this war cannot be reversed.

Ironically, Israel launched the war just as delegations were meeting in Bonn for intersessional climate talks at the annual United Nations Framework Convention on Climate Change (UNFCCC) to discuss pathways to cutting emissions and putting humanity back on a sustainable path. Equally ironic is that in Punta del Este, Uruguay, on June 20, 2025, a major step was taken toward addressing pollution and safeguarding human and environmental health, as countries agreed to establish a new global science-policy panel focused on chemicals, waste, and pollution prevention. Given not only the recent conflict between Israel and Iran but also the expansion of conflict situations worldwide, it is imperative to discuss the serious link between conflict and pollution and sustainable development at the upcoming Climate COP30. The international community must find a way to end armed conflicts and the associated destruction of our planet.

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