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The war on the Gaza Strip and its consequences on global warming

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Introduction

The ongoing conflict in the Gaza Strip is a deeply entrenched issue marked by repeated cycles of violence and devastation. While the immediate human toll and political implications often receive global attention, the war's environmental impact is equally profound yet under acknowledged. Environmental destruction itself has become a weapon of war, one that not only compounds immediate human suffering but also dismantles possibilities for future livelihoods. The devastation of Gaza's environmental resources has broad implications, from increasing the region's vulnerability to climate change to perpetuating a cycle of multigenerational suffering due to long-lasting ecological damage. This article explores how the environmental degradation resulting from the conflict affects not only Gaza but also contributes to global warming and climate instability in the wider region (UNEP, 2024).

What's at stake

The recent conflict in Gaza has left an extraordinary mark on its landscape, with bombings and attacks that have not only shattered infrastructure but have also inflicted widespread ecological damage. In the wake of bombardments, approximately 37 million tons of debris have polluted the land, contaminating both soil and water with toxic substances, including asbestos and heavy metals. This contamination and the lack of proper waste management exacerbate existing environmental issues, affecting the quality of air and water and contributing to global warming in ways often overshadowed by other aspects of the conflict (Arab, 2024).

The scale of emissions from the war itself is significant. In the initial 2 months following October 7, the conflict's emissions equaled the burning of at least 150,000 tons of coal, producing more greenhouse gases than the annual carbon footprint of many climate-vulnerable nations. The reconstruction of 100,000 damaged buildings in Gaza alone, if approached through conventional methods, could result in an additional 30 million metric tons of greenhouse gases. This figure surpasses the yearly emissions of over a hundred countries and matches those of nations like New Zealand. The international community must, therefore, recognize that the conflict is not only a humanitarian crisis but also an environmental one with global repercussions (Mani, 2021).

Destruction of infrastructure and immediate environmental impacts

The impact of the conflict on Gaza's infrastructure has been catastrophic. Power plants, waste management systems, and water treatment facilities have suffered extensive damage, rendering them inoperative and unable to provide essential services. This breakdown leads to further ecological consequences. For example, without functional waste management, refuse accumulates in open areas, posing health risks and leading to the spread of contaminants into the air, water, and soil. Damaged power plants leak chemicals or emit greenhouse gases, exacerbating air and water pollution and adding to the climate crisis (Hussein, 2023).

Within the first few weeks of conflict, all five of Gaza's wastewater treatment plants were forced offline due to power loss. This has resulted in sewage flooding the streets, with at least 130,000 cubic meters of wastewater being discharged into the Mediterranean Sea daily. This contamination threatens not only Gaza's water sources and marine ecosystems but also risks extending environmental damage beyond Gaza's borders, with potential implications for neighboring regions (Weir, 2024).

The impact on agriculture and livelihoods

In addition to infrastructure damage, the conflict has also severely impacted agriculture in the Gaza Strip. Approximately 40 percent of Gaza's farmland has been destroyed, along with 2,000 agricultural buildings. This loss is not merely a blow to food security and local livelihoods; it also has broader environmental implications. Agriculture can act as a carbon sink, helping to absorb carbon dioxide emissions, but the destruction of green spaces diminishes this capacity, increasing the overall concentration of greenhouse gases in the atmosphere (Neimark et al., 2024).

The war has further intensified the environmental crisis for Gaza's residents. As people are forced into overcrowded shelters or temporary camps, pollution levels rise, leading to poor air quality and increased health risks. These conditions not only create immediate suffering but also exacerbate the challenges for Gaza's future sustainability and climate resilience (Buheji and Al-Muhannadi, 2023).

Long-term environmental and societal consequences

The conflict in Gaza is a prime example of how environmental damage can create ripple effects across generations. Not only does the war accelerate climate change, but it also poses immediate challenges for the people who rely on the region's fragile resources. For Gaza's residents, who depend on groundwater from an aquifer now increasingly contaminated by seawater, the future is uncertain. As their access to clean water, fertile soil, and a stable environment diminishes, so too do their prospects for recovery and development (Paché, 2024).

The broader international community should be deeply concerned about the far-reaching consequences of Gaza's environmental degradation. Just as global efforts focus on reducing emissions and combating climate change, it is vital to consider the additional burden that conflicts like these impose on the planet. The damage to Gaza's environment is not isolated; it is a reflection of a broader failure to address environmental issues within conflict zones.

Conclusion

The environmental devastation inflicted on Gaza not only deepens the human suffering caused by the conflict but also has global consequences. These environmental repercussions underscore the need for a coordinated international response that prioritizes both humanitarian aid and environmental stewardship. By addressing the root causes of the conflict, supporting sustainable reconstruction efforts, and promoting environmental protections even in war-torn regions, the global community can begin to mitigate the lasting impact of conflicts like this one. Only with a commitment to peace, sustainability, and resilience can we hope to create a future where the environment is protected, and communities can rebuild from a foundation of stability and hope.

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