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**Human rights situation in Palestine and other
occupied Arab territories**

Written statement* submitted by Institute of Sustainable Development, a non-governmental organization in special consultative status

The Secretary-General has received the following written statement which is circulated in accordance with Economic and Social Council resolution 1996/31.

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* Issued as received, in the language of submission only.



Echoes of Conflict: The Environmental Impact of War Crimes in Gaza

Introduction

The Gaza Strip, a small and densely populated coastal region, has experienced significant pollution due to years of conflict and a growing population. Efforts to curb pollution and restore damaged ecosystems face major challenges, largely due to the complex governance structures in place since 2007.

Despite these challenges, significant investments have been made over the past five years to improve environmental management, particularly in areas such as wastewater treatment and solid waste infrastructure. These initiatives aim to reduce pollution and protect human health and ecosystems on land, in water and in the sea. In addition, both Palestinian and international staff are working to restore vital groundwater to the coast and restore the internationally recognized Wadi Gaza wetland. However, since the escalation of the conflict on October 7, 2023, the impact on the people and environment of Gaza has been devastating. Intensive bombardment has led to widespread destruction of infrastructure, productive resources and essential services. Sewage systems and waste disposal have collapsed, resulting in severe pollution. In addition, the destruction has caused more than 39 million tons of rubble, some of which is contaminated with unexploded ordnance, asbestos and other hazardous materials, and under which human remains are buried.

Even before the recent escalation, both the Gaza Strip and the West Bank (including East Jerusalem) were already struggling with environmental change and degradation. Contributing factors include the restrictions imposed by the ongoing occupation, the complex political and security situation, rapid population growth. Climate change has further exacerbated these problems by altering water cycles and increasing temperatures in the Eastern Mediterranean. The Intergovernmental Panel on Climate Change has described the Mediterranean region as a "climate change hotspot," characterized by highly vulnerable natural systems and socio-economic sectors.

Bombardment

The ecological consequences of the intensive bombardment— of Gaza - 25,000 tons of bombs were dropped in the first month alone — are not yet fully known. However, it is known that such munitions leave behind toxic heavy metals that have already begun to affect the region. These heavy metals pose an immediate health risk to humans and can accumulate in the body over time. They are also very persistent in the environment, accumulating in the food chain and making local food sources dangerous.

Human Rights Watch (HRW) has reported on the use of white phosphorus by Occupying Power during the ongoing assault on Gaza. This substance is internationally banned in densely populated areas as it can burn through human skin to the bone. Apart from the direct human casualties, white phosphorus also has a serious impact on the environment. It can leach into the soil over several years, damaging plants and ecosystems. It can also trigger fires that devastate agricultural land and forests. These effects have been studied in detail in southern Lebanon.

A. Infrastructure

The infrastructural consequences of Occupying Power attacks, now and in the past, are overwhelming and have a clear negative impact on the environment and the displacement of Palestinians. In 2021, air and artillery strikes hit sewage infrastructure, causing sewage to flow into the sea and streets of Gaza, causing flash floods. In the current attacks on Gaza, the disastrous policy of depriving the population of electricity has exacerbated the continued destruction of infrastructure through bombardment.

The population's non-functioning sewage system will not only spread disease, but also seriously jeopardize the long-term environmental health of the area, which is heavily polluted by the toxic effects of large quantities of untreated sewage on the soil and groundwater. Pollution of the seawater (130,000 cubic meters of sewage is discharged into the sea daily) will also affect the health of marine life on the Gaza coast and jeopardize what little food security Palestinians enjoy in the form of their fishing industry.

Environmental Challenges

- **Water:** The conflict in Gaza has created unprecedented soil, water and air pollution in the region, destroying sanitation systems and leaving tons of debris from explosive devices. The large-scale discharge of untreated sewage into and out of the Gaza Strip has been a serious cause of groundwater and marine pollution for many years. Freshwater resources in the Gaza Strip are also under enormous pressure. The decline in rainfall combined with limited regulation has led to groundwater being over-extracted at an alarming rate, – resulting in a decline in aquifer performance and a deterioration in water quality. Seawater intrusion into aquifers has been described by the World Bank as an “ecological disaster and one of the greatest vulnerabilities associated with climate change”.
- **Waste management and disposal:** Local authorities struggle to manage waste collection due to fuel shortages and damaged infrastructure. Problems with solid waste disposal have contributed to environmental pollution in Gaza. Before October 2023, Gaza generated 1,726 tons of solid waste daily, of which more than two-thirds consisted of organic material, cardboard, glass, metals, paper and plastic. Fires and piles of waste contributed to growing concerns about the negative impact on the environment, health and society.
- **Switching to renewable energy:** Before the current escalation, less than 35 percent of Gaza's electricity needs were met by the Gaza power plant, which had limited capacity and was supplemented by electricity imports from Occupying Power. The transition to renewable energy in Gaza's electricity sector was well underway: this contributed to the reduction of emissions and the stability of the electricity supply (which is important for environmental management facilities, including wastewater treatment), which has been affected by the attacks.

Ecocide in Gaza

Since 2014, Palestinian farmers along Gaza's perimeter have seen their crops sprayed by airborne herbicides and regularly bulldozed, and have themselves faced sniper fire by the Occupying Power occupation forces. Along that engineered 'border', sophisticated systems of fences and surveillance reinforce a military buffer zone.

The environment is not just collateral damage, but a target of the Occupying Power army," Lucia Rebolino, co-author of a study by Forensic Architecture, a collective that works with open-source satellite data, tells *The New Arab*. Occupying Power bulldozers have razed fields and orchards to clear a buffer zone more than 300 meters deep along the northern border between Occupying Power and the Gaza Strip. The army builds dikes and mounds of earth to protect its tanks and clear the view. The figures in her study speak for themselves: of the 170 km² of farmland that existed in Gaza before the war - half the territory - a total of 40% has been destroyed. Two thousand agricultural buildings have also been razed in Gaza – including 90% of all greenhouses in the northern districts. By targeting agricultural fields, Occupying Power is attacking an important part of the Gazan economy and ecosystems. A joint study by the UN, the World Bank, and the European Union (EU) estimates the damage to agriculture at \$629 million.

Recommendation

To summarize, military operations and bombardments in Gaza have caused long-term and widespread environmental damage that can clearly be classified as ecocide.

This ecocidal policy has continued with far greater intensity during the current, unprecedented assault on Gaza, leading to increasingly dire consequences for the health of Gaza's ecology and the viability of long-term, healthy human existence there. Not only has ecocide been committed, but the destruction of agriculture and infrastructure, now and in the past, has been highly systematic in nature. These systematic actions reflect the intent expressed in the calls of current and former Occupying Power politicians to expel the Palestinians by making Gaza inhospitable.

The international community must hold Occupying Power and its arms suppliers, including the United States of America, accountable to prevent further military spending without regard for the health of the population and causing catastrophic environmental destruction. We call on the Human Rights Council to remind its member states to reject military support that leads to indiscriminate destruction and instead advocate for policies that protect the lives and human rights of civilians and our environment. The effects of climate change are tangible and increasing worldwide. This underscores the duty of the international community — both from a humanitarian and environmental perspective — to work for a lasting ceasefire in Gaza. The environmental legacy of the conflict is a heavy burden — too heavy for future generations. It is imperative that we unite to end this cycle of destruction and work towards a sustainable and peaceful future for all.

- Encourage peace dialogs that include environmental goals: Facilitate peace negotiations that recognize environmental issues and offer mechanisms for joint resource management.
- Ensure that nations involved in conflicts are held accountable for environmental damage through international legal frameworks.
- Occupying power has an obligation to maintain a safe, clean, and healthy environment in Gaza, as the right to a healthy environment is a fundamental human right,

<https://www.newarab.com/analysis/ecocide-gaza-environmental-impact-israels-war#:~:text=The%20figures%20in%20her%20study,greenhouses%20in%20the%20northern%20districts.>

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