

HS UNEP- "Improving Upon the Environmental Impacts of War and Conflict Zones"

War and conflict leads to environmental degradation, but environmental degradation can, in turn, lead to war and conflict in a dangerous cycle. Militaries account for nearly 6% of the world's fossil fuel consumption. From 1950 to 2000, more than 80% of wars and armed conflicts took place in biodiversity "hotspots", regions of Earth that are completely irreplaceable in their species and ecosystem services. Many conflict zones are never cleaned up and their impacts are exacerbated for decades. Water supplies in conflict zones are contaminated with oil from military vehicles and ammunition leeches uranium. Entire forests are cleared to build military bases, refugee camps, and other structures; they are also often destroyed to eliminate available cover for enemies. Nuclear and chemical weapons used in war leave irreversible damage to the landscape. In addition, not only do bombs leave behind terrible destruction and pollutants, undeployed bombs and mines riddle war zones for decades after the war may subside. Military ships that were sunk leach toxins from their frames into the oceans, placing countless species of marine life at risk, as well as polluting the ocean floor. The environmental impacts of war can be unintentional byproducts of military operations or intentional acts meant to destabilize the enemy.

The Vietnam War is an example of both intentional and unintentional impacts on the environment. The war efforts tore apart the jungle with bombs and mines, many of which still reside in the forests of Vietnam. It is estimated that three million explosive devices were left undeployed; the jungle grows around these pollutants as they leach their toxins, and they still run the risk of being set off by large animals or passing humans. In a decade-long military operation known as *Operation Ranch Hand*, the United States spent the 1960s spraying 19 million gallons of herbicides and defoliants across south Vietnam to deprive the Viet Kong of cover and food resources. This act coined the term "ecocide", in which unlawful acts are committed with knowledge of and intent to cause long-term damage to the environment. The mass destruction of nature enacted by humans threatens all populations who are dependent on natural resources.

Water is often utilized as a weapon of war. In Iraq, the Mesopotamian Marshes are considered a "refuge of biodiversity" according to UNESCO. During the 1990s, Saddam Hussein drained the wetlands to flush out the rebels that were living there. This act of ecocide forced hundreds of thousands of the Ma'dan to flee and seek refuge elsewhere. In the Kalahari Game Reserve of Botswana, the government spent several years in the 2000s filling in boreholes with cement to prevent the Bushmen people from having access to water, aiding in the forced eviction of the natives. The destruction or poisoning of wells is a centuries-old technique to complete sieges, weaken opponents, or punish populations. Upstream combatants can threaten flooding or cutting off water to a downstream population to ensure cooperation. Utilizing water as a weapon for forced compliance or punishment is an act of war that has been documented as far back as the 1500s.

Nuclear impacts are a newer impact of war. These attacks kill wildlife and raze vegetation over a wide range away from the blast zone. Wildfires spread for miles out from the point of impact. The lack of vegetation can accelerate wind and water erosion. Animals not immediately killed by heat or impact will soon succumb to infections and radiation weeks later, leading to a detrimental localized die-off event, stunting the ability of the ecosystem to rebound or thrive genetically. During the Cold War, the United States continuously tested nuclear bombs in the Pacific Ocean; entire islands are still completely barren and inhabitable. Nuclear testing contaminates surface soil, groundwater, and seabed sediments. Then there is the threat of nuclear fallout even when atomic bombs are not utilized, due to the damage of nuclear power plants or waste sites during war efforts. The environment has long since been utilized as a tactic to win conflicts, though it is so often overlooked when investigating casualties and war crimes.

REFERENCES & FURTHER READING:

https://www.justsecurity.org/84367/watch-this-space-momentum-toward-an-international-crime-of-ecocide

https://www.arabnews.com/node/2321031

https://watson.brown.edu/costsofwar/costs/social/environment

https://www.dw.com/en/nuclear-testing-north-korea-environment-biodiversity/a-6341 8634

https://www.nytimes.com/2022/04/13/science/war-environmental-impact-ukraine.ht ml

https://www.aspeninstitute.org/programs/agent-orange-in-vietnam-program/what-is-agent-orange