**THE MILITARY FACTOR AND CLIMATE CHANGE**

**by**

**Joanne Dufour**

***What was missing from the COP26 Agenda?***

When the Kyoto Agreement was discussed in 2010, the United Kingdom proposed excluding military activities in calculations of their nation’s carbon footprint.  The U.S. agreed and joined in omitting  military activity. In 2015 when the Paris Agreement allowed countries to include military activity or not, the U.S. again decided on exclusion. The  environmental consequences of U.S. military activities have been substantial over the last 75 years. Again in preparation for the COP 26, data regarding military contribution to climate change was missing from reports of the nuclear states. This piece will focus on the United States military’s role in the climate crisis, in particular the need to defund the nuclear weapons program in order to finance climate solutions.

***Data from Environment Researchers***

According to a number of researchers, like [EcoWatch](https://www.ecowatch.com/)and others, the U.S. Military is the **world’s largest polluter** and [**single largest consumer of oi**](https://www.ucsusa.org/clean_vehicles/smart-transportation-solutions/us-military-oil-use.html)**l**. Thus, it is one of the world’s top greenhouse gas emitters. Today, China is the [world’s largest greenhouse gas emitter](https://edgar.jrc.ec.europa.eu/overview.php?v=booklet2018&dst=CO2emi&sort=des9), followed by the United States. In 2017, the Pentagon’s greenhouse gas emissions totaled [over 59 million metric tons of carbon dioxide equivalent](https://ctsedwweb.ee.doe.gov/Annual/Default.aspx?ReturnUrl=%2fAnnual%2fReport%2fSiteDeliveredEnergyUseAndCostBySectorAndTypeAndFiscalYear.aspx). If it were a country, it would have been the world’s 55th largest greenhouse gas emitter, with emissions larger than Portugal, Sweden, or Denmark. The largest sources of military greenhouse gas emissions are buildings and fuel. According to an [article](https://theconversation.com/the-defense-department-is-worried-about-climate-change-and-also-a-huge-carbon-emitter-118017) by Boston University professor Neta C. Crawford, The Department of Defence (DOD) maintains over 560,000 buildings at hundreds of domestic and overseas military installations, which account for about 40 percent of its greenhouse gas emissions. The rest comes from operations.

As for the toxic pollution left behind by the U.S. military, according to a [2018 article](https://popularresistance.org/2019-defense-budget-supports-883-overseas-bases-and-is-lethal-to-humanity/) by Lynn Petrovich, the U.S military produces more hazardous waste than the five largest U.S. chemical companies combined. Petrovich writes “The DoD has left its toxic legacy throughout the world in the form of depleted uranium, oil, jet fuel, pesticides, defoliants like Agent Orange and lead, among others.” The U.S. has 883 military bases located outside continental U.S. in U.S. territories and in 183 other countries on 7 continents and 7 bodies of water .

In addition to pollution created during peacetime training, wartime impacts have included  deforestation, diversion or contamination of rivers, large releases of oil, and use of non-renewable fuels and other materials by the military, according to Westing in [*War and Public Health.*](https://oxford.universitypressscholarship.com/view/10.1093/acprof%3Aoso/9780195311181.001.0001/acprof-9780195311181) For example, one bombing mission  uses enough fuel in one hour to drive a car for seven years.

Both domestic and foreign U.S. military bases consistently rank among the most polluted places in the world, as perchlorate and other components of jet and rocket fuel contaminate sources of [drinking water](https://www.ecowatch.com/tag/drinking-water), aquifers and soil. The U.S. Environmental Protection Agency's (EPA) [list of Superfund sites](http://www.veteransinfo.org/epa.html)  contains hundreds of military bases, which qualify for clean-up grants from the government. In her [article on the U.S. Military’s Toxic Legacy](https://www.mintpressnews.com/on-earth-day-remembering-the-us-militarys-toxic-legacy/227776/) Whitney Web shared that almost 900  of the nearly 1,200 Superfund sites in the U.S. are abandoned military facilities or sites that otherwise support military needs.

As for cost, in 2019 the US military budget was as large as the 10 next largest military budgets combined, cites the [International Campaign to Abolish Nuclear Weapons (ICANW)](https://www.icanw.org/). The [National Priorities Project](https://www.nationalpriorities.org/) indicated that  the military spent  fifteen times more money than was spent on energy and environment. While critics argue that climate solutions are a pipe dream and too costly, both major U.S. political parties favor expansion of military and nuclear budgets, even exceeding military requests. This country  has unwittingly accepted  internalizing the use of violence in foreign affairs and has been willing to finance it without questioning or publicizing the  resistance to any noteworthy extent while also financing the huge carbon footprint and environmental destruction caused by the U.S. Military.

***Some Military Considerations***

In President Obama’s remarks to the Coast Guard Academy’s commencement ceremony in May 2015, he noted five ways Climate Change will impact the U.S. military:

(1) There would be more humanitarian missions around the world due to severe storms

(2) More disaster response missions at home

(3) A threat to the readiness of military forces as many installations are on a coast with more possible flooding

(4) More competition for resources with melting sea ice changing Arctic landscape and

(5) Greater likelihood for civil strife given worsening food and water shortages in severe drought areas leading to increased refugee flows.

Since then, military leaders have acknowledged that climate change poses a national security threat leading the DoD to set goals for reducing fossil fuel use and transitioning to clean and renewable energy.

According to a release on October 29, 2021, “The Department of Defense (DoD) is actively working with the whole of government to tackle the climate crisis…DOD is elevating climate change as a national security priority, integrating climate considerations into policies, strategies and partner engagements. ”On September 1st, 2021 the DoD released the  [Department of Defense 2021 Climate Adaptation Plan](https://www.sustainability.gov/pdfs/dod-2021-cap.pdf).

***WHY CONSIDER THE NUCLEAR WEAPONS ISSUE ?***

Addressing the issues which affect our climate are of critical importance, but so are the consequences of any use of nuclear weapons, and these issues are Intertwined. Consider the following

1. Both issues are transborder and transgenerational. They cannot be contained in time or in space.
2. Neither can be solved at national levels but require international cooperation to protect human security.
3. Climate change stimulates conflicts due to growing resource scarcity, which may likely lead to the use of nuclear weapons, especially now that low yield weapons are available and are to be considered in every planned action.
4. The human and financial resources devoted to the creation and maintenance of nuclear weapons are desperately needed for carbon emission reduction and climate stabilization. According to [a report from ICANW](https://www.icanw.org/2020_global_nuclear_weapons_spending_complicit#:~:text=In%202020%2C%20the%20report%20estimates,contractors%20to%20build%20nuclear%20weapons), this year $72.6 billion was spent on nuclear weapons between governments and private companies. In recent years raging wars abroad and stories about distant ecological catastrophes have become background noise to a large segment of the population especially in nuclear weapon countries. Neither subject is the primary focus of our media or political discourse.
5. The U.S. nuclear weapons budget has been consistently increasing every year since President Obama authorized the updating of the entire nuclear arsenal of land, air and sea based nuclear missiles, leading to all other nuclear countries doing the same.

With the coming into force of the **Treaty for the Prohibition of Nuclear Weapons** (TPNW) on January 22, 2021, there has been an increasing awareness of the devastating effects of a new cold war and the escalation and updating of the nuclear arsenals of all the nine nuclear nations.  On the bright side there is also growing support for the Treaty. ICANW has been promoting its support and offers the following developments towards a nuclear free world:

* Some companies like General Electric stopped production of nuclear weapons. The [Don’t Bank on the Bomb](https://www.dontbankonthebomb.com/beyond-the-bomb-these-investors-are-rejecting-nuclear-weapons/) report, *Beyond the Bomb*, profiles 77 banks, pension funds, insurance companies and other financial institutions with policies to divest from nuclear weapons producers.
* Three of the world’s largest pension funds have divested from nuclear weapons
* Some universities ceased assisting in research connected with nuclear weapons. See [Schools of Mass Destruction (icanw.org)](https://universities.icanw.org/) for a list of universities in the United States currently involved in nuclear weapon research and development.
* Mitsubishi UFG Financial Group, one of the five largest banks in the world, has excluded nuclear weapons production from its portfolio, labeling them “inhumane”.

We have two existential threats to our planet today needing immediate attention. They are intertwined, as we defund militarism and nuclear weapons programs we can move money and resources towards the development of renewable energy and climate solutions. It is my hope that we can all work together to eliminate both of these threats for the benefit of all the children who will inherit our world.