

Nuclear Weapons and Climate Change in the Age of Corporate Globalization

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“...[G]lobal warming and nuclear war are two different ways that humanity, having grown powerful through science, through production, through population growth, threatens to undo the natural underpinnings of human, and all other, life.” Jonathan Schell, 2007.¹

“Is this association of inordinate power and productivity with equally inordinate violence and destruction a purely accidental one?” Lewis Mumford, *The Pentagon of Power*, 1970.²

On those occasions when people talk about global warming and nuclear weapons at the same time, the focus usually is on their effects. They are two different ways that the human species can do enough damage to the ecosystems we depend on to threaten not only our own survival but that of most life on this planet. But at the same time, the threats posed to humanity by global warming and nuclear weapons share common causes. Each are predictable products of an economy and society dependent on endless material growth, driven for centuries by ruthless competition among authoritarian organizations of ever increasing size.

Both climate change and the fossil-fuel based economy generate or intensify conflicts within and among states. Governments and elites respond with war and threats of war abroad, and with increasingly militarized repression at home. Meanwhile the causes of conflict remain largely unaddressed. Extreme economic inequality and the economic policies that create it, struggles over diminishing fossil fuels, food price spikes and crop failures, drive wars and revive arms races from Iraq to Syria to Ukraine to South Asia and the Western Pacific.

At the same time, tensions among nuclear-armed countries are rising at a quickening pace, amidst circumstances that bear worrisome resemblances to those that brought the devastating world wars of the last century. For the first time in the nuclear age we are in a sustained global economic crisis, one that is deepening the gulf between rich and poor in a starkly two-tier global economy. All of this is exacerbated by new kinds of challenges, including approaching limits in easily retrievable resources and the deterioration of ecosystems. This new round of

great power confrontation is taking place in a world where over 14,000 nuclear weapons remain, with more than 9,000 in military service and 1800 on high alert. Over 90% of these weapons are in the arsenals of the United States and Russia, each of which deploys enough nuclear firepower to end global civilization in short order. All nuclear-armed states are modernizing their nuclear arsenals, manifesting the intention to sustain them for decades to come.³

Nuclear-armed countries spend over \$100 billion per year on nuclear weapons and related costs.⁴ Those expenditures are expected to increase as nuclear weapons states embark on ambitious plans to modernize their warheads and delivery systems. Spending on high-tech weapons deepens the divide between rich and poor. In 2017, \$1.74 trillion was spent on militaries and armaments.⁵ This sum dwarfs the (still largely unrealized) \$100 billion annually pledged by wealthy countries to help developing countries address climate change, and could go a long way towards meeting the 2015 UN Sustainable Development Goals.⁶ Most of the money spent on high tech militaries circulates within a world of military organizations and industries that constitute privileged enclaves within their societies. This keeps the world on a path where tensions both within and among countries are likely to intensify, and where the main solution offered for social conflict is organized violence.

The same organizations that insist nuclear weapons provide political security now are trying to sell us more nuclear power plants as a climate-friendly way to achieve energy security. Nuclear power never has fulfilled a half-century of promises of cheap, abundant energy. After the Fukushima power plant disaster, it should be clear that the human and ecological costs of nuclear power are unacceptable. It is time that all nations recognize nuclear power as an expression of the technology, economy, and politics of the 20th century, inextricably linked to centralized, authoritarian power structures and to weapons of mass destruction brandished in their defense.

The connection between nuclear weapons and nuclear power always has run both ways. The capacity

to sustain a nuclear fuel cycle and to operate reactors provides the technological base for the production of nuclear weapons. But the potential to acquire nuclear weapons also provides a political base for an expensive and dangerous technology that otherwise would be hard pressed to compete with other ways to generate electricity. The common technology and materials base provides a rationale for governments to shroud the development of nuclear technology in secrecy, concealing both the risks and the full costs. "Civilian" applications of nuclear technology then provide a glamorous, high-tech gloss over the underlying deadliness of the entire enterprise: "Atoms for Peace," and promises of electricity "too cheap to meter." This drama is playing out again in countries with elites striving to join the top tier of a stratified global economy, where large scale, centralized electricity generation is a first priority to power privileged new enclaves of production and consumption.

Five decades ago in words that seem like they could have been written this morning, Martin Luther King said, "...[We] have been forced to a point where we are going to have to grapple with the problems that men have been trying to grapple with through history, but the demands didn't force them to do it. Survival demands that we grapple with them. Men, for years now, have been talking about war and peace. But now, no longer can they just talk about it. It is no longer a choice between violence and nonviolence in this world; it's nonviolence or nonexistence."⁷

Our technologies have brought us to the point where we may destroy ourselves and much of the chain of life that sustains us. We may do this quickly with catastrophic warfare, or slowly just by staying on the ecologically unsustainable course that those who hold power insist on -- and insist on "defending" with a spectrum of violence that extends from the midnight knock on the door through the torture chambers to the incineration of cities, lands, and peoples. The choice we face today is not only between nonexistence and nonviolence, but between nonexistence and the work of building real democracy for the first time, a full recognition of our collective vulnerability and our interdependence, one humanity, with every voice heard equally, one living and livable world or none.

California: The Nuclear Arms Race in Our Back Yard

Almost three decades after the end of the Cold War, the world's nuclear-armed countries once again are engaged in nuclear arms racing. All are modernizing their existing nuclear forces, with the U.S., Russia, and China planning a variety of more capable nuclear weapons delivery systems.

A significant part of the designing and testing of U.S. nuclear weapons systems happens right here in California. One of the two main nuclear weapons research laboratories, the Lawrence Livermore National Laboratory (LLNL), is located in Livermore, about forty miles east of San Francisco. Sandia National Laboratory, a leading nuclear weapons engineering contractor, also has a facility in Livermore. LLNL is managed by a consortium that includes the University of California, which also is part of the group that manages the other main nuclear weapons design laboratory in Los Alamos, New Mexico.

Flight tests for U.S. intercontinental ballistic missiles are conducted at Vandenberg Air Force Base on the central California coast. Vandenberg also tests a variety of other weapons systems, including missile defenses, and is home to a variety of military space operations.

¹ "Trying to Dispel a Mist with a Machine Gun," A Tomdispatch Interview with Jonathan Schell, December 4, 2007

² Lewis Mumford, *The Myth of the Machine: The Pentagon of Power*, (New York: Harcourt Brace Javanovich, 1970), p. 257.

³ Hans M. Kristensen and Robert S. Norris, "Status of World Nuclear Forces," Federation of American Scientists web site, June 2018, <https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/>.

⁴ Bruce G. Blair & Matthew A. Brown. "Nuclear Weapons Cost Study," Global Zero, June 2011, https://www.globalzero.org/files/gz_nuclear_weapons_cost_study.pdf

⁵ *SIPRI Yearbook 2018, Summary*, Stockholm International Peace Research Institute, May 2018, p.6.

⁶ Sam Perlo-Freeman, "The Opportunity Cost of World Military Spending," Stockholm International Peace Research Institute, April 5, 2016, <https://www.sipri.org/commentary/blog/2016/opportunity-cost-world-military-spending>

⁷ Martin Luther King, Jr., "I've Been to the Mountaintop," April 3, 1968.

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