



## RESOURCE SECURITY WATCH

The American Foreign Policy Council's Review of  
Changes to the Global Strategic Environment

# Resource Security Watch No. 43

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**Related Categories:** Energy Security; Science and Technology; Resource Security

## THE MILITARY COSTS OF CLIMATE CHANGE

U.S. military experts are worried that, as foreign and domestic crises grow, the U.S. government could end up giving short shrift to the impact of climate change on national security. Writing for Yale University's *Yale Climate Connections*, Maj. Gen. Dennis Laich (ret.), Col. Lawrence Wilkerson (ret.) and Erik Edstrom warn that "[n]ational security will be adversely impacted by the climate crisis across at least three levels." First, the note, the Pentagon "will be pressured to dramatically reduce its carbon footprint through logistical and naval decarbonization efforts." Second, the military will have to respond to increasing extreme climate events that threaten key infrastructure around the globe. As they outline, "In 2018, DOD found that thousands of bases and installations – more than half – reported exposure to at least one climate-related impact." Finally, the U.S. military will be forced to tackle potential clean-up following civil unrest, disorder and migration stemming from climate change in already unstable regions.

The challenge, the authors outline, is a real one. With the threat of such events occurring concurrently, American forces run the risk of becoming too overstretched to adequately respond to common security threats. Thus, "for every fractional increase in temperature from climate change, the costs of maintaining peace – and the likelihood that such peace will be unstable – will increase exponentially." (*Yale Climate Connections*, April 19, 2022)

## A GLOBAL SAND CRISIS ON THE HORIZON

Following the same trend as other non-renewable resources, the world is currently facing a massive sand shortage due to the growing consumption of glass, concrete, and construction material. Following a 2019 awareness study flagging this as an "overlooked" issue, the UN Environment Programme (UNEP) released a comprehensive report on the topic, outlining that the impact from over-exploitation is already being felt in Asia and Africa. "Sand is the most exploited natural resource in the world after water, but its use is largely ungoverned, meaning we are consuming it faster than it can be replaced by geological processes that take hundreds of thousands of years," the report lays out. These regions are already vulnerable to climate change, and the over-extraction of sand from beaches often makes coastlines even more susceptible to erosion.

In the report's foreword, UNEP Economy Division chief Sheila Aggarwal-Khan warned that "we now find ourselves in the position where the needs and expectations of our societies cannot be met without improved governance of sand resources." Demand and supply are also being monopolized by China to fuel its own construction boom, leading to fears about American supply chains running dry in the near future. The UNEP's recommendations to mitigate the crisis include the implementation of a ban on sand extraction from beaches and the creation of international regulation for marine dredging. (UN Environment Programme, April 26, 2022; Reuters, April 27, 2022; *Popular Mechanics*, May 2, 2022)

## U.S. NAVY AIMS TO CURB EMISSIONS

In May, in its *Climate Action 2030* report, the U.S. Navy announced its goal of achieving a 65% reduction in the emission of greenhouse gasses by 2030, and a target of net-zero emissions by 2050. Navy Secretary Carlos Del Toro has emphasized that "[c]limate change is one of the most destabilizing forces of our time, exacerbating other national security concerns and posing serious readiness challenges." According to the report, the service will meet those goals by employing a number of strategies, including: curbing five million metric tons of carbon dioxide by 2027 (the equivalent of removing one million cars off the road); installing cyber-secure microgrids or comparable resilience technology to support its missions; ensuring a domestic supply of lithium batteries; and working rapidly to electrify its vehicle fleet. (Department of the Navy, May 2022; *CNBC*, May 24, 2022)

## HOW CLIMATE IS PROPELLING MIGRATION

Climate change has emerged as a major driver of population migration, with significant side effects for international security. In a 2021 report, for instance, UN researchers identified climate change as the primary driver in the migration of Iraqis from rural areas of the country to the southern city of Basra. There, they resided in "clustered areas," which – due to "poorly managed urban in-migration" – led to the creation of large slums "where migrants are more vulnerable to recruitment by criminal and extremist groups."

The Iraqi example is one of many. NATO member states are already at the center of large waves of conflict-driven migration from Africa, the Middle East and now Ukraine. However, new UNHCR data shows that, over the last decade, weather-related crises created twice as much displacement as conflict. This trajectory, moreover, is expected to continue. In some areas of Latin America, Africa and West Asia, the effects of climate change are worsening poverty, food insecurity, and civil unrest — and driving migration, including illegal migration into the United States. (UN IOM Iraq, October 2021; *NATO Review*, May 19, 2022; *Yale Climate Connections*, May 24, 2022)