QUINCY INSTITUTE
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STATECRAFT

Climate Change: The Greatest National Security Threat to the United States

OCTOBER 2021 | QUINCY BRIEF NO. 18

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Executive Summary

Climate change presents threats to the United States and the wellbeing of its citizens that dwarf those from Russia, China, or Iran. U.S. government policies and priorities should be reoriented accordingly. The necessary policy changes are these:

- U.S. strategy toward China should be crafted and focused with a view to making sure tensions between the two countries do not impede international action against climate change. A zero-sum relationship between the great powers will ensure continued prioritization of manageable military threats over existential climate perils. This is precisely the policy framework that must be superseded.
- Spending on efforts to limit climate change and mitigate its effects should take precedence over military spending, especially on new, vast, and nonessential programs such as the upgrading of America's nuclear forces, which are already much larger than nuclear deterrence requires.
- International aid should be increased and redirected toward building resilience against climate change in endangered countries, especially, but not only, in Central America.
- The United States should seek opportunities to work with China's Belt and Road Initiative, BRI, to improve climate resilience in Asian and African countries.
- The United States should maintain cooperation and trade with China in the area of renewable energy technology.

Reconciling rhetoric and action

The Biden administration has declared correctly that climate change is an existential threat to the United States. Thus, the new National Intelligence Estimate on Climate Change, published on October 21, warns of rising geopolitical tensions and increased

threats of instability in weak states especially affected by climate change.[1] The report reads in part:

> Scientific forecasts indicate that intensifying physical effects of climate change out to 2040 and beyond will be most acutely felt in developing countries, which we assess are also the least able to adapt to such changes. These physical effects will increase the potential for instability and possibly internal conflict in these countries, in some cases creating additional demands on US diplomatic, economic, humanitarian, and military resources.

On the same day, the White House published a report on climate change and migration warning that climate change can exacerbate other factors driving migration in ways that may greatly increase levels of migration in future. The report states:

> The amount of investment needed to respond to and minimize climate drivers of migration and displacement goes far beyond the resources of the United States alone. It will require the full convening and leveraging power of the U.S. Government.[2]

But in spite of lip service to this position, most of the U.S. foreign and security policy establishment continues to prioritize the traditional threat of great-power competition over the real and urgent threat of climate change.[3] Reflecting this, the Department of Defense report on climate change, also published in October 2021, tries in part to turn climate change into a driver of traditional threats rather than a threat in itself:

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[1] National Intelligence Council. "Climate Change and International Responses Increasing Challenges to US National Security Through 2040." National Intelligence Estimate, October 21 2021. https://www.dni.gov/files/ODNI/documents/assessments/NIE_Climate_Change_and_National_Security.pdf.

[2] "Report on the Impact of Climate Change on Migration." The White House, October 2021. 6. https://www.whitehouse.gov/wp-content/uploads/2021/10/Report-on-the-Impact-of-Climate-Change-on-Migration.pdf.

[3] See, for example, Wright, Thomas. "The risk of John Kerry following his own China policy." Brookings Institution, December 23, 2020. https://www.brookings.edu/blog/order-from-chaos/2020/12/23/the-risk-of-john-kerry-following-his-own-china-policy/ ; for a critique of the Biden administration's attempt to combine cooperation with China on climate change with hostility on other questions, see the letter to President Biden from progressive groups and members of the Democratic Party, "Cooperation not cold war to confront the climate crisis," July 7, 2021. http://foe.org/wp-content/uploads/2021/07/Cooperation-Not-Cold-War-To-Confront-the-Climate-Crisis-129.pdf; for a critique of the foreign policy establishment's misplaced priorities, see Bacevich, Andrew J., and Annelle Sheline. "The End of American Militarism?" *Foreign Affairs*, October 15, 2021. https://www.foreignaffairs.com/articles/north-america/2021-10-15/end-american-militarism.

> In the Arctic, climate change is dramatically altering the natural environment and creating a new frontier of geostrategic competition.
>
> In the Indo–Pacific, sea-level rise and more extreme weather events complicate the security environment, plac[ing] key DoD warfighting infrastructure and surrounding communities at risk... Additionally, competitors such as China may try to take advantage of climate change impacts to gain influence.[4]

The Annual Threat Assessment of the U.S. Intelligence Community for 2021 devotes only two of its 27 pages to the issue of climate change.[5] Given the overwhelming evidence of the damage climate change already causes, and the vastly greater harm it threatens in the future, there is an urgent need for a fundamental change of course to allow the United States to concentrate resources on limiting climate change rather than on geopolitical competition.

In particular, reduced tensions between the United States and China would not only allow both countries to devote more resources to the struggle against climate change while averting the danger of a war that would be absolutely fatal for efforts against climate change (and to the populations of both countries and their allies); to shift away from Washington's increasingly confrontational posture would also open the way for America and China to cooperate in developing the resilience of other countries threatened by climate change, especially in Africa where states are weak, conflicts numerous, and ecological problems already severe. This will prove far wiser and more effective than viewing each other's actions on climate-change amelioration as hostile moves in a zero-sum game.

The Pentagon has long recognized in principle that climate change is a serious danger.[6] As the 2010 Quadrennial Defense Review states,

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[4] Department of Defense Climate Risk Analysis, October 2021. 6. https://media.defense.gov/2021/Oct/21/2002877353/-1/-1/0/DOD-CLIMATE-RISK-ANALYSIS-FINAL.PDF.
[5] Office of the Director of National Intelligence. "Annual Threat Assessment of the U.S. Intelligence Community," April 9, 2021. https://www.dni.gov/files/ODNI/documents/assessments/ATA-2021-Unclassified-Report.pdf.
[6] See Klare, Michael T. *All Hell Breaking Loose: The Pentagon's Perspective on Climate Change*. New York. Metropolitan Books, 2019; Carp, Rick. "How the Pentagon thinks about the climate crisis." *Rolling Stone*, September 23, 2019. https://www.rollingstone.com/politics/politics-features/how-the-pentagon-thinks-about-the-climate-crisis-887832/.

> Climate change, energy security, and economic stability are inextricably linked. Climate change will contribute to food and water scarcity, will increase the spread of disease, and may spur or exacerbate mass migration.[7]

However, far too many of the Defense Department's reports on the subject focus on the changing climate's limited and manageable threat to U.S. military bases rather than on the infinitely greater dangers to the United States as a whole and U.S. global interests. And alleged threats from Russia and China tend to supersede real and vital climate questions in the Pentagon's published documents. The melting of the Arctic ice cap, to take one example, is too often advanced as a reason to stir up anxiety about Russian and Chinese expansion in the region (a matter of deep concern to the walruses and polar bears, perhaps) rather than the potentially cataclysmic dangers of methane released from the permafrost and a surge in global sea levels. The security establishments of America's NATO partners miscalculate just as badly as the Pentagon on this question. NATO Secretary General Jens Stoltenberg warned in June that "climate change risks a new cold war in the Arctic."[8]

Despite its stated intent to prioritize climate action as an existential threat, the Biden administration has unambiguously and contradictorily nominated China as the greatest threat facing the United States. It is apparently willing to risk escalation with China over Taiwan, but it is not willing to risk domestic disfavor by pushing for truly ambitious climate action that takes on entrenched interests.[9]

Even John Kerry, the administration's climate change "czar," has been forced by establishment pressure to place competition with China on the same level of importance as action against climate change — although it should be obvious that while China poses a limited challenge to U.S. global hegemony (or merely to U.S. primacy in

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[7] "Quadrennial Defense Review Report." Office of the Secretary of Defense, February 2010. https://history.defense.gov/Historical-Sources/Quadrennial-Defense-Review/.
[8] See Madeira, John. "2019 DoD Arctic Strategy: China and Russia, but no climate change?" American Security Project, May 29, 2019. https://www.americansecurityproject.org/dod-arctic-strategy-china-russia-and-no-climate-change/; "Climate change risks new cold war in Arctic, warns NATO chief Jens Stoltenberg." *CarbonBrief*, June 19, 2021. https://www.carbonbrief.org/daily-brief/climate-change-risks-new-cold-war-in-arctic-warns-nato-chief-jens-stoltenberg.
[9] Nordhaus, William. "Why Climate Policy Has Failed." *Foreign Affairs*, October 12, 2021. https://www.foreignaffairs.com/articles/world/2021-10-12/why-climate-policy-has-failed.

maritime East Asia), it is in no sense an existential threat to the United States as a sovereign nation, or to the lives of U.S. citizens.[10]

Hopes that cooperation on climate change can somehow be isolated from a general state of mutual hostility, which the administration has entertained since Biden took office, appear quixotic. And Beijing rejects any such thought.[11] It is now customary in Washington to describe relations with China in Cold War terms, including the deep ideological antipathy this nomenclature implies. The Cold War with the Soviet Union excluded U.S.–Soviet cooperation in almost every field except (belatedly) nuclear-arms control; it also turned American and Soviet development efforts in the Global South into rival and often mutually destructive strategies.

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A symposium sponsored by the Quincy Institute in 2020 made clear the severe costs deteriorating relations between the United States and China have for climate change action. In particular, U.S. sanctions against China's low-carbon energy industry will reinforce China's dependence on ecologically disastrous coal, which the Biden administration is pressing Beijing to reduce.[12] Equally, creating barriers to cooperation with China in the field of green technology will limit China-sourced imports that U.S. industry badly needs for the transition to low-carbon electricity and electric vehicles.[13]

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[10] Ward, Alex. "John Kerry promises that U.S. climate change diplomacy won't lead to weaker China policy." *Vox*, January 27, 2021. https://www.vox.com/2021/1/27/22252649/john-kerry-climate-change-china.
[11] Litwak, Robert S. "Geostrategic Competition and Climate Change: Avoiding the Unmanageable." Wilson Center, September 15, 2021. https://www.wilsoncenter.org/article/geostrategic-competition-and-climate-change-avoiding-unmanageable.
[12] Lieven, Anatol, and Rachel Esplin Odell. "Kerry's China climate talks should focus on coal consumption." *Responsible Statecraft*, April 14, 2021. https://responsiblestatecraft.org/2021/04/14/kerrys-china-climate-talks-should-focus-on-coal-consumption/.
[13] "Greening U.S.–China Relations: A Symposium." Quincy Institute for Responsible Statecraft, September 18, 2020. https://quin.cyinst.org/symposium/greening-u-s-china-relations-a-symposium/.

More broadly, increased restrictions on technology transfers and intellectual exchanges between the United States and China will impede intellectual cooperation on renewable energy and carbon-capture development across the world.[14] The deep mistrust between the American and Chinese security establishments will also prevent cooperation on disaster relief — which will become more and more important as the effects of climate change gather pace.

As Minxin Pei, a China scholar at Claremont McKenna College, has written,

> The one hope humanity has [to limit climate change] lies in technological innovation. Yet such innovation — including the rapid progress in renewable energy over the last decade — has depended crucially on the relatively free flow of technologies across borders, not to mention China's unique ability to scale up production and reduce costs quickly.
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> Amid cold war-fuelled economic fragmentation — especially the aforementioned restrictions on trade and technology transfers — urgently needed breakthroughs would become much more difficult to achieve. With that, a technological solution for climate change, already a long shot, would effectively become a chimera. And the greatest existential threat humanity faces would be realized.[15]

In fact, the imperative to act on climate change is the clearest example of the way in which the Washington security establishment has separated its interests and priorities from the genuine security of Americans and their descendants. As a result of this inherited establishment mindset, not only are U.S. resources and attention diverted from the effort to limit climate change; these entrenched biases will also strengthen climate-deniers in their refusal even to accept that climate change is a real danger.

The Biden administration has sought to mobilize public and bipartisan support for its green infrastructure plans with an appeal along traditional nationalist lines to the need

[14] See Loh, Christine, and Robert Gottlieb. "The USA and China need to put aside their rivalry and concentrate on the common enemy: climate change." *TIME*, October 28, 2019. https://time.com/5711951/us-china-climate-change-environment/.
[15] Pei Minxin. "The Sino–US Cold War's Collateral Damage." *Project Syndicate*, October 19, 2018. https://www.project-syndicate.org/commentary/us-china-cold-war-trade-climate-change-by-minxin-pei-2018-10.

for the United States to compete technologically and economically with China. This is not unlike Washington's effort to stimulate technological innovation after the Soviet launch of the first satellite in 1957, the "Sputnik moment." It is, however, potentially a very counterproductive strategy, as it reinforces the prevalent tendency to see international competition precisely not in peaceful (and potentially even mutually beneficial) economic terms, but through the prism of military preparedness and zero-sum geopolitical rivalry.

The atmosphere of permanent crisis and Cold War-style mobilization that this creates is distracting attention from climate change and confirming the military bias in U.S. budgets — exactly the reverse of what the struggle to limit climate change requires. As President Obama noted in a 2014 speech, "Just because we have the best hammer does not mean that every problem is a nail."

The direct physical damage climate change has done to the United States and to American citizens already exceeds anything that China or Russia could do short of large-scale war.

Countries around the world will judge the prestige of the United States and China not in terms of their militaries, but, above all, by their economic advances, technological achievements, state efficiency, and social solidarity. But convincing U.S. elites and ordinary citizens of the need for radical action and sacrifice to limit climate change can be accomplished only by persuading enough of them that climate change is indeed a dire threat to their own wellbeing and that of their descendants and to the national security and future existence of their country. This shared understanding is key to creating the kind of national consensus on climate change that exists in Europe — and, indeed, in China albeit in a different form.[16]

To be clear, the argument for climate change as America's true national security priority is not hard to make. The scientific basis for the warming effect of greenhouse gases on

[16] See Lieven, Anatol. *Climate Change and the Nation State*. New York. Oxford University Press, 2021. 115–138.

the atmosphere was established more than 150 years ago and has never been controverted. The increase in global temperatures in recent decades matches so closely the increase of these gases in the atmosphere due to human activity that to deny a close connection appears wholly irrational. The increased frequency and intensity of heat waves, wildfires, and storms in recent years corresponds closely to scientific predictions for the impact of climate change on global weather patterns.

Most important, evidence from previous eras of climate change, as considered below, demonstrates beyond reasonable doubt the extreme dangers involved in allowing global temperatures to rise by more than 2 degrees Celsius, 3.6 degrees Fahrenheit. The direct physical damage done to the United States and to American citizens already exceeds anything that China or Russia could do short of large-scale war. The potential future damage exceeds anything they could do short of a nuclear exchange — which, of course, none of the great powers wants. The existential threat to key U.S. allies will come much sooner — in some cases by the middle of this century.

As Marc Levy of the Earth Institute has written,

> A threat to national security is an action or a sequence of events that (1) threatens drastically and over a relatively brief period of time to degrade the quality of life for the inhabitants of a state, or (2) threatens significantly to narrow the range of policy choices available to a state or to private, nongovernmental entities (persons, groups, corporations) within the state. . . . Taken all together, these effects [of climate change] would constitute a security risk if they threatened such a severe upheaval to the domestic economy that Americans would suffer greater hardship than we as a society consider tolerable.[17]

A simple thought experiment is in order. If we cast our minds back 120 years, to the start of the 20th century, we see a world in which the elites of the European great powers were convinced, as elites are now, that the greatest threats to their states and societies were rival states. With hindsight, it is obvious that they were utterly, tragically mistaken.

[17] Levy, Marc A. "Is the Environment a National Security Issue?" *International Security*, vol. 20, no. 2, October 1995. 40, 51.

The real threat was internal: the potential barbarism lurking in socioeconomic tensions and extremist ideologies that were to be released by the First World War and that came very close to destroying Western civilization.

If we cast our minds forward 120 years, to the middle of the 22nd century, we find ourselves in a world in which — if the present trajectory of greenhouse gas emissions continues — global temperatures will have risen by at least 3.5 degrees Celsius (leading to sea level rises of six meters) and quite possibly by very much more. The 22nd century has been predicted to be "the century from hell," an era of immense natural disasters, famines, and the mass movement of starving people. Is it imaginable that in these circumstances our descendants will think that the greatest danger facing the United States — let alone the world in general — was competition from China? Will they not instead look on the ruling elites of today with the same combination of bewilderment and contempt with which we regard those of 1914?

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The threat of climate change to national security and national interests of the United States comes in three forms, two of which are already evident. These are limited but direct effects of climate change on the United States, and the much worse effects (though still limited) in other, more vulnerable parts of the world. These effects take the form of a slow general rise in temperatures interspersed with heat waves, slowly rising sea levels contributing to worsening floods as a result of storms, and disruption to

rainfall patterns, resulting both in increased flooding and damage to agricultural production.

Due to the amount of greenhouse gases already pumped into the atmosphere, these effects will worsen incrementally over the next few decades regardless of what actions are now adopted.[18] One key objective of U.S. policy at home and abroad should therefore be to help build resilience against these effects through measures to strengthen flood defenses, develop new heat-resistant crops, and manage increased pressures to migrate. If, however, measures are not taken in time radically to reduce global carbon emissions, by the middle decades of this century the rise in the global temperature will exceed 2 degrees Celsius.

The local effects of climate change will then begin to worsen in the second half of this century to the point that damage to the United States will increase radically and more vulnerable states and societies will not be able to survive. This outcome can be predicted with reasonable certainty, given existing trajectories of climate change. Beyond this, however, is the third threat just noted, more distant and uncertain but far more catastrophic. It is that a rise of more than 2 degrees Celsius will lead to runaway climate change that would threaten the very existence of the United States as a sovereign nation, of modern civilization, and possibly of humanity itself.

The physical effects of climate change on the United States

The direct physical effects of climate change on the United States will take the form, in the short to medium term, of heat waves, wildfires, and droughts in the Western states and intensified storms and flooding in the East. The unprecedented heat waves and wildfires in the West and Canada in the summer of 2021 are entirely in keeping with previous predictions for the short– and medium-term impact of climate change in these

[18] Wallace–Wells, David. *The Uninhabitable Earth: A Story of the Future*. New York. Tim Duggan Books, 2020 reprint. 37.

regions. By midcentury, maximum temperatures during heat waves are estimated to rise by up to 6.1 degrees Celsius, producing life-threatening heat events on a regular basis.[19]

A considerable number of major American cities, including New York, Los Angeles, Miami, New Orleans, and Seattle, are in low-lying coastal areas in acute danger from rising sea levels and worsening storms.[20] Warming oceans are likely to produce intensified hurricanes. The effects of these will be increased by a rise in sea levels, especially along the coasts of the Gulf of Mexico and the northwestern Atlantic.

It is important to remember that long before places disappear permanently under water, repeated flooding will make them uninhabitable. It is estimated that by 2045, some 300,000 U.S. homes with a total value of about $117 billion will be uninhabitable due to flooding, while, by the end of the century, homes and businesses currently worth more than $1 trillion (not including infrastructure) are likely to be at risk.[21]

The Intergovernmental Panel on Climate Change, the IPCC, estimates that if present trajectories for carbon emissions continue, global sea levels will rise by more than a meter by 2100. However, uncertainty concerning the speed at which the Greenland ice cap will melt means that this could be an overestimation — or a very considerable underestimation.

If sea levels rise by more than three meters — a plausible 22nd century scenario — not just Miami and New Orleans, but very extensive coastal areas of the United States will be subject to flooding, and tens of millions of people will be forced to migrate. (Elsewhere in the world, it will be hundreds of millions.) Once again, short of nuclear war, Chinese and Russian strategies do not threaten major U.S. cities with anything like this kind of destruction.

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[19] Mazdiyasni, O., and A. AghaKouchak. "Substantial increase in concurrent droughts and heatwaves in the United States." *Proceedings of the National Academy of Sciences*, 112, 2015. 11484–11489. doi:10.1073/pnas.1422945112.
[20] "Climate Impacts on Coastal Areas." U.S. Environmental Protection Agency, January 19, 2017. https://19january2017snapshot.epa.gov/climate-impacts/climate-impacts-coastal-areas_.html ; see also "Climigration Case Studies." http://www.climigration.org/case-studies.
[21] "Underwater: Rising Seas, Chronic Floods, and the Implications for US Coastal Real Estate." Union of Concerned Scientists, 2018. https://www.ucsusa.org/global-warming/global-warming-impacts/sea-level-rise-chronic-floods-and-us-coastal-real-estate-implications#.WyqrH9Izrcs; see also Javeline, Debra, and Tracy Kijewski–Correa. "Coastal Homeowners in a Changing Climate." *Climatic Change,* vol. 152, no. 2, 2018. 259–274.

Over the past 20 years there has been a steep increase in the costs of weather-related natural disasters in the United States. In the decade to 2020, total losses from these causes came to $886 billion, compared (in constant 2020 dollars) with $272 billion in the 1990s. The effects of Hurricanes Henri and Ida, together with wildfires in western states, are expected to make 2021 another extremely costly year. By way of fatalities, in 2020 and 2021 there were 238 deaths in the United States due to hurricanes and storms, with many hundreds more deaths in the western states due to heat waves.

The combined effects of climate change and the longstanding depletion of nonrenewable aquifers on which California and the Southwest depend for water face much of this region with a particular danger. According to an officially sponsored U.S. climate change report,

> **Annual trends toward earlier spring melt and reduced snowpack are already affecting water resources in the western United States** and these trends are expected to continue. Under higher scenarios, and assuming no change to current water resources management, **chronic, long-duration drought is increasingly possible before the end of this century**.[22]

The density of snow in the Rockies is likely to fall by up to 17 percent by midcentury and 65 percent by the end of this century, while in the Sierra Nevada the declines are 21 percent and 89 percent. States and communities in California and the Southwest will have to make some politically and socially wrenching choices between the needs of cities and the needs of agriculture.

Increasingly severe limits on water consumption will have to be put in place, putting an end to the lawn, swimming pool, and golf club culture that has historically attracted many middle class people to the region — even as these regions are also scorched by increasingly murderous heat waves. In fact, we are likely to see a reversal of the migration of past decades to the Southwest from the rust belt of the Midwest, bringing

[22] U.S. Global Change Research Program. *Fourth National Climate Assessment,* vol. 1. Climate Science Special Report, 2017. https://science2017.globalchange.gov/.

to an end after only a few decades the explosive expansion of huge urban developments in the region.[23]

By contrast, it must be pointed out yet again that China and Russia have done no physical harm whatsoever to the United States or its people. Russia may have the capability to inflict physical harm through cyberattacks on, say, the American electricity grid, but it has not actually carried out such attacks. (It is extremely important in this regard to understand the difference between cyberespionage and cybersabotage.)[24]

It is, indeed, highly unlikely that Moscow would adopt such a strategy, since the United States has publicly indicated that it is in a position to retaliate with cyberattacks that would do even greater damage to Russian infrastructure.[25] Climate change threatens physical harm to Americans. Rival great powers pose only a limited threat to the international interests of the United States as defined by the Washington establishment — and very little to the wellbeing of American citizens.

The climate threat to U.S. allies and neighbors

In the next few decades, the direct effects of climate change on the territory of the United States, though in many cases extremely unpleasant at the local level, will remain manageable and will not threaten the nation's existence. The World Bank ranks America sixty-ninth in its scale of countries threatened by climate change — in other words, in the medium range, worse off than Russia but much better off than China and India.

This is, however, no cause for complacency: The impact of climate change on weaker, more vulnerable, and heavily populated states within the next few decades has the potential to create state failures and waves of migrants that will destroy key U.S. allies and further undermine liberal democracy in the United States itself.[26] In these regions,

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[23] See Pierre–Louis, Kendra. "Want to Escape Global Warming? These Cities Promise Cool Relief." *The New York Times*, April 15, 2019.
[24] See Lieven, Anatol. "Biden's retaliatory cyber-attacks against Russia are folly." *Responsible Statecraft*, March 11, 2021; Skingsley, Juliet. "The SolarWinds hack: a valuable lesson for cybersecurity." Royal Institute of International Affairs, February 2, 2021. https://www.chathamhouse.org/2021/02/solarwinds-hack-valuable-lesson-cybersecurity.
[25] Sanger, David E., and Nicole Perlroth. "U.S. Escalates Attacks on Russia's Power Grid." *The New York Times*, June 15, 2019. https://www.nytimes.com/2019/06/15/us/politics/trump-cyber-russia-grid.html.
[26] See Khanna, Parag. "Migration will soon be the biggest climate change issue of our time." *Financial Times*, October 4 2021.

climate change will act as a “threat multiplier” (a phrase coined in 2007 by Sherri Goodman, then leading CNA Corporation’s Military Advisory Board), contributing to and increasing present tendencies.[27]

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Central America

This indirect danger to the United States begins in America’s neighborhood — in Mexico, Central America, and the Caribbean. This is a region that has been shamefully neglected by successive U.S. administrations in favor of commitments and aid to far-off areas of the world whose fate has much less impact on American citizens. The fundamental reshaping of U.S. international aid to strengthen other countries against the impacts of climate change must concentrate above all on helping America’s neighbors.

According to a report of the U.S. Council on Strategic Risks, published in 2020,

> At 1–2°C/1.8–3.6°F of global average warming, the SOUTHCOM [Southern Command] area of responsibility will experience shifting precipitation patterns and acute water shortages, forcing communities to migrate in search of new opportunities in an increasingly unstable environment…. At 2–4+°C/3.6–7.2+°F of global average warming, the SOUTHCOM area of responsibility will likely experience even more acute weather instability, crop collapse, and spreading

https://www.ft.com/content/415f4a8c-cab4-4f95-99aa-b347bb510365?segmentId=b0d7e653-3467-12ab-c0f0-77e4424cdb4c.

[27] “National Security and the Threat of Climate Change.” CNA Corporation. CNA Military Advisory Board, 2007. https://www.cna.org/CNA_files/pdf/National%20Security%20and%20the%20Threat%20of%20Climate%20Change.pdf .

> disease. Failing agricultural productivity, water insecurity and infrastructure will increase the likelihood of violent conflict, drive significant internal and cross-border migration, and increase political instability.... These risks communicated through incendiary political rhetoric, to an increasingly concerned [U.S.] public, can engender nationalist, isolationist, anti-democratic and authoritarian responses. These could limit future American responses to contain crises outside its border, just as those insecurities increasingly threaten to spill over into U.S. territory.[28]

The physical vulnerability of much of Central America to climate change stems in part from the concentration of populations in coastal areas, which are threatened by strengthened hurricanes in addition to rising sea levels. Since 1990, the region has seen a steady increase in the number and intensity of storms, though human casualties have been reduced by better warning and evacuation systems.[29] In 2020, hurricanes Eta and Lota caused shattering economic losses in Guatemala and other countries of the region.[30] A generation earlier, Hurricane Mitch (1998), which caused 11,000 deaths, resulted in a considerable increase in migration from Honduras and neighboring states. On average, estimates indicate that the most damaging Central American storms have increased migration to the United States from the worst affected regions by up to 540 percent over the succeeding year.[31]

Flooding on the Atlantic coast of Central America worsens in El Niño years, which, contrarily, tend to cause droughts on the Pacific coast. If greenhouse gas emissions

[28] "A Security Threat Assessment of Global Climate Change: How Likely Warming Scenarios Indicate a Catastrophic Security Future." National Security, Military and Intelligence Panel on Climate Change, February 2020. 58. https://climateandsecurity.org/wp-content/uploads/2020/03/a-security-threat-assessment-of-climate-change.pdf.
[29] "Mexico, The Caribbean and Central America: The Impact of Climate Change to 2030." Joint Global Change Research Institute and Battelle Memorial Institute, December 2009. https://www.dni.gov/files/documents/climate2030_MexicoCaribCentralAm.pdf.
[30] Kitroeff, Natalie. "2 Hurricanes Devastated Central America: Will the Ruin Spur a Migration Wave?" *The New York Times* December 4, 2020. https://www.nytimes.com/2020/12/04/world/americas/guatemala-hurricanes-mudslide-migration.html.
[31] Spender, Nekeisha, and Mikhail–Ann Urquhart. "Hurricane strikes and migration: evidence from storms in Central America and the Caribbean." *Weather, Climate and Society*, vol. 10, no. 3, July 1, 2018. 569–577. https://journals.ametsoc.org/view/journals/wcas/10/3/wcas-d-17-0057_1.xml.

continue at present levels, the IPCC and Britain's Hadley Centre predict, Central America will suffer severe reductions in rainfall; interior highlands will be the worst affected.[32]

Large percentages of people throughout Central America are dependent on agriculture, with the rural proportion of the population varying from a quarter to more than 60 percent. Several years of drought in the region have already had an appreciable effect on migration. In 2019, three-quarters of the staple corn and bean crops in southern Honduras were lost to drought. The World Food Program reported that 30 percent of migrants interviewed cited the drought as their chief reason for leaving.[33]

The most damaging Central American storms have increased migration to the United States from the worst affected regions by up to 540 percent over the succeeding year.

As in other regions of the world most threatened by climate change, the danger to Central America comes not from climate change alone, but, rather, from the effects of climate change in combination with poverty and state dysfunction. The proportion of people in the region who live below the poverty line varies from approximately 23 percent in Mexico to 49 percent in Honduras. Most countries suffer from social inequality, official corruption, poor public services, oppressive security forces, and exceptionally high levels of criminal violence and gang warfare, which U.S. policies have done little or nothing to mitigate.

If the effects of climate change in Central America continue along generally predicted trajectories, it also seems certain that these will drive greatly increased levels of migration to the United States. And as elections and opinion polls over the past decade and more make clear, fear of illegal immigration is a fundamental driver of extremist

[32] Nakicenovic, N., and R. Swart. *Special Report on Emissions Scenarios*. Cambridge. Cambridge University Press, 2000.
[33] Masters, Jeff. "Fifth straight year of Central American drought helping to drive migration." *Scientific American*, December 23, 2019.

politics in the United States.[34] Americans are already bitterly polarized politically, and increasing numbers of them are ready to resort to illegal and undemocratic tactics to achieve their aims. In these circumstances, greatly increased migration and the reaction against it have the potential gravely to damage or even destroy American democracy. The Biden administration has invoked the supposed threat of authoritarian states to America and the other Western democracies, and the Democratic Party has devoted very considerable attention to alleged Russian attempts to manipulate U.S. public opinion. But such efforts can play at best a minor role in exacerbating tensions within the United States that are growing for reasons wholly unconnected to Russian or Chinese strategies and conduct. As with the states of Europe before 1914, the true threat to America's political system comes from within.

South Asia

In Eurasia and Africa, the impact of climate change is likely to be even worse than in Central America. India and its immediate neighbors, Pakistan and Bangladesh, face the risks of steep economic decline by the middle of this century and state collapse by century's end. [35] A 2018 report by HSBC, the global bank, puts India first among large countries vulnerable to climate change, followed by Pakistan in second place and Bangladesh in fourth. [36] South Asia is home to nearly a quarter of the world's population. Quite apart from the immense human suffering involved, climate-induced mass migration from this region would destabilize the entire international system due to the sheer magnitude of its population. The collapse of the Pakistani state would also create a potential safe haven for terrorists that would dwarf anything yet seen.

The suggestion that India's territorial dispute with China over small, mostly uninhabited, and economically worthless parts of the Himalayas is in any way comparable with the

[34] Hajnal, Zoltan. "Immigration and the origins of White backlash." *Daedalus*, Spring 2021. https://www.amacad.org/publication/immigration-origins-white-backlash.
[35] Lieven. *Climate Change and the Nation State*. 29–34, 42–46; Pal, Jeremy S., and Elfatih A. Eltahir. "Future Temperature in Southwest Asia Projected to Exceed a Threshold for Human Adaptability." *Nature Climate Change,* vol. 6, no. 2, 2016. 197–200.
[36] Paun, Ashim, Lucy Acton, and Wai–Shin Chan. "Fragile Planet: Scoring Climate Risks around the World." HSBC Global Research, March 2018. https://www.sustainablefinance.hsbc.com/reports/fragile-planet.

threat of climate change that faces India is intellectually grotesque, yet this is the position of the security establishments in Washington and Delhi.

At sustained temperatures of more than 40 degrees Celsius, 104 degrees Fahrenheit, rice cultivation becomes impossible, as does prolonged physical work in the open air. At present, these temperatures last only a few weeks. With climate change they could last for months, wiping out the staple crop of much of the region.[37] The IPCC report of 2018 estimated that a further rise in temperatures of only 0.5 degree Celsius would reduce India's grain harvest per hectare by more than one-sixth.[38] While the other great powers may be able to survive global warming if temperature increases remain within the range of 2 to 4 degrees Celsius, this is not true of India.[39]

South Asia is home to nearly a quarter of the world's population. Quite apart from the immense human suffering involved, climate-induced mass migration from this region would destabilize the entire international system, due to the sheer magnitude of its population.

The World Bank predicts that if no further global mitigation actions are taken, by 2050 some 800 million South Asians (about 35 percent of the projected population at that date) will see their living standards decline sharply as a result of climate change.[40] This

[37] Babson, Esther. "The Importance of Rice: Why We Should Care about Sri Lanka's Changing Climate." American Security Project, January 8, 2018. https://www.americansecurityproject.org/the-importance-of-rice.
[38] "Global Warming of 1.5 Degrees." Intergovernmental Panel on Climate Change, 2018. https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf.
[39] See Werrell, Caitlin E., and Francesco Femia. "Climate Change, the Erosion of State Sovereignty and World Order." *Brown Journal of World Affairs*, vol. 12, no. 2, Spring–Summer 2016. 221–235. http://bjwa.brown.edu/22-2/climate-change-the-erosion-of-state-sovereignty-and-world-order/; *Fifth Assessment Report: What's in It for South Asia?* Intergovernmental Panel on Climate Change, 2014. https://cdkn.org/wp-content/uploads/2014/04/CDKN-IPCC-Whats-in-it-for-South-Asia-AR5.pdf; Ghazi, Tariq Waseem, A.N.M. Munirazzaman, and A.K. Singh. "Climate Change and Security in South Asia: Co-operating for Peace." Global Military Council on Climate Change, May 2016. http://gmaccc.org/wp-content/uploads/2016/05/Climate_Change_and_Security_in_South_Asia.pdf; "Climate Change and Risks to Food Security." World Economic Forum Global Risks Report 2016. 50–58. https://www.weforum.org/reports/the-global-risks-report-2016.
[40] Mani, Muthukumara, Sushenjit Bandyopadhyay, Shun Chonabayashi, Anil Markandya, and Thomas Mosier. "South Asia's Hotspots: Impact of Temperature and Precipitation Changes on Living Standards." Washington. World Bank, June 2018.

prediction makes nonsense of the argument that India needs to continue expanding its fossil fuel consumption to power economic growth.[41]

West Africa

As far as America's allies in Europe are concerned, the greatest danger of excessive migration stems from West Africa, where climate change will contribute to an already dire combination of problems: state weakness and dysfunction, deep poverty and inequality, steep population growth, Islamist revolts, ethnic conflict, and ecological degradation.[42]

The survival of liberal democracy in Europe is critical to democracy's survival in the world as a whole, as it is to the bedrock alliances upon which America bases its claim to leadership of the world's democracies. It is equally the case that the strength and prosperity of the European economies are of vast importance to America's economic position in the world. The radical destabilization of Europe would therefore badly damage America's vital international interests. West Africa's vulnerability to climate change and its effects must be viewed in this larger context.

Temperatures are rising faster in West Africa than anywhere else outside the Arctic. This means a global rise of 2 degrees Celsius will produce a rise of more than 3 degrees in much of Africa. As a result, a radical transformation of the local climate may occur within the next few decades in the Sahel and West Africa.[43]

As in South Asia, prolonged heat waves would badly damage the agriculture on which most of the population continues to depend: Crop yields would decline and outside work would become impossible.[44] Probable disruptions of agriculture in wealthier

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[41] Turner, Andy. "The Indian Monsoon in a Changing Climate." *Composite Water Management Index.* Royal Meteorological Society, August 16, 2018. https://www.rmets.org/resource/indian-monsoon-changing-climate; Antos, David. "India, Climate Change and Security in South Asia." Briefer No. 36, Center for Climate and Security, May 3, 2017. https://climateandsecurity.org/2017/05/briefer-india-climate-change-and-security-in-south-asia/.
[42] See Heinrigs, Philipp. "Security implications of climate change in the Sahel region: policy considerations." OECD Secretariat, 2020. https://www.oecd.org/swac/publications/47234320.pdf.
[43] Mora, C.F., *et al.* "The projected timing of climate departure from recent variability." *Nature,* vol. 502, 2013. 183–187. https://www.nature.com/articles/nature12540.
[44] *Sixth Assessment Report.* Intergovernmental Panel on Climate Change, August 9, 2021. https://www.ipcc.ch/report/ar6/wg1/downloads/factsheets/IPCC_AR6_WGI_Regional_Fact_Sheet_Africa.pdf; Ezeife, Nwabueze Dozie. "Projected impact of global warming on West Africa: the case for regional and transnational

countries such as China will force up global food prices, making it impossible for poor African countries to cover productivity declines by buying food on international markets. Absent massive international aid (in circumstances of probable global food shortages), the result will be famine — which, in turn, would threaten greatly to escalate the spread of Ebola and other infectious diseases already besetting the region.

In central Nigeria, water shortages due to overpopulation and poor water use are already producing violent clashes between pastoralist and agriculturalist ethnicities of the sort that helped to cause civil war in the Darfur region of Sudan. This may be a harbinger of conflicts across West Africa that arise alongside the Islamist insurgencies already ravaging the Sahel.

Such disasters in West Africa would undoubtedly add greatly to migration from the region to Europe across the Mediterranean and along the Atlantic coast, which has already helped to strengthen radical right-wing parties in several European countries.[45] In southern Europe, the destabilizing effects of this migration will be joined to those of the direct physical effects of climate change, which threaten desertification on both sides of the Mediterranean.[46]

A radical transformation of the local climate may occur within the next few decades in the Sahel and West Africa.

On one hand, the question of distributing migrants among different countries is likely to increase greatly existing tensions over this issue among southern, eastern, and northern

adaptive strategies." *Annual Survey of International and Comparative Law,* vol. 20, no. 1, 2014. https://digitalcommons.law.ggu.edu/cgi/viewcontent.cgi?article=1185&context=annlsurvey.

[45] See Schain, Martin A. "Shifting Tides: Radical Right Populism and Immigration Policy in Europe and the United States." Transatlantic Council on Migration, August 2018. https://www.migrationpolicy.org/sites/default/files/publications/Schain-PopulismUSandEurope-Final-Web.pdf; Doherty, Carroll. "Five Facts About Trump Supporters' Views on Migration." Pew Research Center, August 25, 2016. https://www.pewresearch.org/fact-tank/2016/08/25/5-facts-about-trump-supporters-views-of-immigration/; Tesler, Michael. "Republican views on immigration are shifting even further to the right under Biden." *FiveThirtyEight*, August 17, 2021. https://fivethirtyeight.com/features/republican-views-on-immigration-are-shifting-even-further-to-the-right-under-biden/.

[46] National Security, Military and Intelligence Panel on Climate Change. "A Security Threat Assessment." 40–45. https://climateandsecurity.org/wp-content/uploads/2020/03/a-security-threat-assessment-of-climate-change.pdf.

Europeans to the point these tensions may destroy the European Union altogether. It should be remembered in this context the contribution that anger about mass migration made to the British vote to leave the E.U.

On the other hand, if the recent past is any indication, greatly increased migration from Africa will further increase support for chauvinist parties across Europe, eventually destroying liberal democracy in one of its two core regions. This would render absurd the Biden administration's self-assigned role as leader of a global coalition of democracies against authoritarianism. There will be little point in preaching democracy to Russia and China if Éric Zemmour, the far-right journalist, is president of France and Alternative für Deutschland is the governing party in Germany. Once again, it will be climate change in combination with local factors that would produce this result. China, Russia, Iran, and North Korea would have nothing to do with it.

The potential end of civilization

The threats of climate change to the United States described so far are to American democracy, American global interests, and particular regions of America.There is, however, the possibility of a far more cataclysmic outcome of climate change — one that would destroy the United States as an organized society and kill the great majority of Americans along with most of the rest of humanity.[47]

The IPCC's Sixth Assessment Report, published in 2021, weighs the potential of such outcomes more seriously than before and states that some of them "cannot be ruled out." This is the risk — which cannot be quantified but which also must not be ignored — that climate change will escape from human control altogether, and through a set of "positive feedback loops" or self-reinforcing processes, 3 degrees Celsius of global warming will generate 4 degrees and 4 degrees will generate 5. By any such point, the earth would have returned to its state of 55 million years ago when the entire planet had a tropical climate and sea levels were more than 120 meters higher than at present. If

[47] Treat, Jason, *et al.* "What the World Would Look Like If All the Ice Melted." *National Geographic,* September 2013; Wallace–Wells. *The Uninhabitable Earth.* 64–68; Lynas, Mark. *Six Degrees: Our Future on a Hotter Planet*. New York. Harper Perennial, 2008. 163–241.

this change took place over thousands of years humanity might be able to adapt, albeit with extreme difficulty. However, geological evidence suggests that some radical climate shifts in the past took place much more rapidly than was previously thought.[48] At the end of the last ice age, it appears that temperatures in the North Atlantic region warmed by about 5 degrees Celsius in the space of a few decades.

The danger of runaway climate change is nowhere more evident than in the Arctic, where temperatures are rising faster than anywhere else on the planet. The disappearance of Arctic Sea ice reduces the reflection of sunshine back into space, further increasing warming. Melting ice also allows the sun's rays to penetrate and warm the ocean.

A further and much steeper increase in Arctic temperatures would create the possibility (though how strong a possibility is impossible to say at present) of two catastrophic tipping points: the melting of the Greenland ice sheet, raising sea levels by tens of meters over a few decades, and, still more dangerously, the melting of the Arctic permafrost, causing the release of immense amounts of methane into the atmosphere — a development already evident in Siberia. Methane has a greenhouse effect almost 40 times more powerful than that of carbon dioxide.[49]

A vast increase in the proportion of methane in the atmosphere over a short period of time would unquestionably drive temperatures rapidly upward by 4, 5, or even 6 degrees Celsius. Neither the United States nor any other organized society could withstand a catastrophe on this scale. Most of humanity would be doomed, and civilization, if it survived at all, would do so only in small, heavily fortified enclaves. To state the obvious, this is not an outcome Beijing or Moscow either threaten or desire.

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[48] Zimmer, Carl. "The Planet Has Seen Sudden Warming Before. It Wiped Out Almost Everything." *The New York Times,* December 7, 2018. https://www.nytimes.com/2018/12/07/science/climate-change-mass-extinction.html.

[49] See Trusel, Luke D., *et al.* "Nonlinear Rise in Greenland Runoff in Response to Post–Industrial Arctic Warming." *Nature*, December 5, 2018. https://doi.org/10.1038/s41586-018-0752-4; "Is Arctic Permafrost the 'Sleeping Giant' of Climate Change?" NASA Science, June 24, 2013. https://science.nasa.gov/science-news/science-at-nasa/2013/24jun_permafrost; Mooney, Chris. "Arctic Cauldron." *The Washington Post,* April 18, 2019. https://medium.com/thewashingtonpost/what-will-climate-change-do-to-us-3f9968a53dcf.

If this danger evolves into an imminent reality, humanity will have no choice but to try to adopt geoengineering strategies to modify the weather in the Arctic and limit temperature rises at least in that key region. The risks and uncertainties of geoengineering, which are considerable, mean that it should be adopted to prevent a catastrophe for humanity only as a very last resort. Above all, it is essential that it should be undertaken as a joint project of the United States, the E.U., China, Japan, and Russia. For one of the greatest dangers inherent in geoengineering is that rival powers might adopt rival strategies to benefit themselves at the expense of others.

The likelihood of this apocalyptic risk is at present unquantifiable.[50] This, however, is another reason the U.S. military and security establishment needs fully to recognize this danger and spend much more time talking about it in public. Military planning operates on the basis not of certainties but of risks, the scale of risks, and the balance among different risks, and there is a desperate need that they should extend this reasoning to the field of climate change. As Chad Michael Briggs wrote in *International Security* nine years ago:

> As abrupt changes and surprises do not lend themselves well to estimations of "most likely" probabilities (otherwise they would not be surprising), climate security assessments often therefore also focus more on what is possible than on what is probable. Military planning does take into account probable risks, but very often contingency planning is also made for events that are of unknown probability, yet entail severe consequences. . . . The emphasis is on responding to uncertainty, rather than on waiting for uncertainty to disappear.[51]

The presence of a risk on this scale to the United States and humanity in general clearly renders current disputes between the United States and its geopolitical rivals irrelevant by comparison. China's fortified reefs and sandbanks in the South China Sea are a case in point. They have prompted much anxiety and countermobilization in Washington. But if — as seems only too likely — we fail to keep the rise in temperatures below 2 degrees

[50] Nordhaus, William. "Projections and Uncertainties about Climate Change in an Area of Minimal Climate Policies." National Bureau of Economic Research, working paper, 2016.
[51] Briggs, Chad Michael. "Climate Security, Risk Assessment and Military Planning." *International Security*, vol. 88, no. 5, 2012.

Celsius sea levels rise by several meters, a century from now these militarized islands will be a nonissue because they will all be under water again.

Conclusions: Reorienting U.S. global strategy

A U.S. strategy that genuinely prioritized climate change as an existential national threat would first recognize that the continued pursuit of global hegemony — with inevitably deteriorating relations with other great powers such as China — all but eliminates the prospects for crucial, international collaboration against the shared threat of climate change. A less confrontational and more cooperative relationship with China would allow the possibility of cooperation, elsewhere in the world, in building local resilience against climate change and spreading renewable-energy technologies. It would also remove the risk that — as with the United States and the Soviet Union during the Cold War — America and China will be drawn in on opposite sides of local civil wars. That outcome would not only destroy any hope of strengthening these societies against climate change; indirect military conflict between great powers would also render impossible the degree of collaboration necessary between these powers to counter climate change. In short, a zero-sum relationship between the great powers will ensure continued prioritization of manageable military threats over existential climate perils.

At home, a rethought global strategy must begin with a far more intense effort to reduce U.S. carbon emissions, as this is by far the greatest contribution that the United States can make to the global struggle to limit climate change. This should involve first and foremost a massive shift of public-sector investment in research and development — away from the military and toward renewable energy, nuclear fusion, energy conservation, removal of carbon from the atmosphere, and potentially geoengineering.[52] As William Nordhaus has argued, R&D is key, because renewable technology needs to be radically improved to be sufficiently advanced to replace fossil fuels at scale.[53]

[52] Luhby, Tamy. "Here's what's in Biden's infrastructure proposal." CNN, April 21, 2021. https://edition.cnn.com/2021/03/31/politics/infrastructure-proposal-biden-explainer/index.html; "Government expenditures on defense research and development by the United States and other OECD countries." Congressional Research Service, April 21, 2020. https://sgp.fas.org/crs/natsec/R45441.pdf.
[53] Nordhaus. "Why Climate Policy Has Failed."

Given that considerable damage from climate change is already evident and is bound to get somewhat worse whatever we now do, the other aspect of a U.S. strategy that truly prioritizes climate change would focus on building domestic and international resilience to mitigate climate change's effects. Domestically, this would involve large new investments in flood defenses and water-management systems, the gradual evacuation of unsaveable coastal areas, government guarantees for private insurance against natural disasters, and funding a surge of innovation in areas such as desalination and lower-cost batteries. In the service of these objectives, the Army Corps of Engineers should become the most important branch of the U.S. armed forces, and national research agencies should emerge at the front line of climate action.

Internationally, prioritizing climate change should involve a considerable increase in U.S. assistance and its redirection toward those states that are most vulnerable to climate change and whose further weakening or collapse would most severely affect the United States. Chief among these regions are Central America and the Caribbean. The most important areas of support are agricultural adaptation, water conservation and management, flood defenses, and measures to help migrants remain close to their homes.

Rethinking the U.S. international aid budget should also involve redirecting aid substantially toward America's Central American neighbors to support not just resilience against climate change but also economic and social development. America's neglect of its own neighborhood in recent decades has been one of the most inexcusable aspects of U.S. global policy — especially given the problems that Central America has generated for the United States and the far greater problems that it could generate in the future.

Reflecting present priorities, in 2020 no Central American country was among the top 10 recipients of U.S. aid; even Mexico received less than Ukraine and vastly less than Israel, Egypt, Iraq, or Afghanistan (as long as the U.S. involvement in the war there lasted).[54] Instead of aid, the United States has relied on the questionable economic nostrums of

[54] See ForeignAssistance.gov, July 26, 2021.

the North American Free Trade Agreement, a militarized response to the narcotics problem that shows few signs of curbing their production and import into the United States, and support for authoritarian regimes. None of these responses will be remotely adequate to save the region from the consequences of climate change — or the United States from the consequences of state collapse in this region.

A U.S. strategy that genuinely prioritized climate change as an existential national threat would first recognize that the continued pursuit of global hegemony — with inevitably deteriorating relations with other great powers such as China — all but eliminates the prospects for crucial, international collaboration against the shared threat of climate change.

As this paper is intended to demonstrate, long before the most extreme physical consequences of climate change emerge, its effects will dwarf the dangers presented by geopolitical rivals such as China, Russia, and Iran. Moreover, these effects, should we fail to stop them, will not be of some radically new and strange kind. As the Pentagon itself has reported, they will amount to the "multiplication" of existing and entirely predictable security threats: state collapse, civil wars, terrorism, famine, mass migration, and the radicalization and destabilization of the U.S. and European political systems. Some of these threats are specific to the United States and Europe, but others threaten all organized states — China and Russia included. The United States should therefore seek to work in tandem with Chinese development strategies to develop and stabilize endangered societies, while ensuring that these strategies are carbon neutral. Ideally, this joint approach to development should replace blanket U.S. hostility to China's Belt and Road Initiative, as we have at present.

Yet the U.S. national security community, which discusses endlessly and obsessively even small and unlikely dangers from very weak rivals such as Iran, has paid minimal attention to the changing climate's much greater threat to U.S. national security and even — potentially — America's existence. One sign of this is the fact that despite the best efforts of the Biden administration, many national security experts have treated the administration's green infrastructure package as a matter of domestic politics with which they are not too concerned, rather than as an issue of national security whose importance is greater in the long term than the U.S. military budget itself.[55]

Trapped by their traditions, their institutions, and their careers, the U.S. national security establishment has forgotten that at intervals throughout history, governing elites and systems configured to meet one kind of threat have found themselves faced with a new kind. Those with the flexibility and the moral courage to adapt successfully have survived. Those who have remained stuck in their old ways have been destroyed — and their countries with them.

[55] For a rare military view of the importance of domestic infrastructure to national security, see Capt. Wayne Porter and Col. Mark Mykleby. "A National Strategic Narrative." Wilson Center, 2011. http://www.scifun.org/Readings/A_National_Strategic_Narrative.pdf. Porter and Mykleby wrote as "Mr. Y."

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