



# How Climate Change and Water and Food Insecurity Drive Instability

By Carolyn Kenney

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The 2016 U.S. presidential election gave rise to concerns about how the next administration might—or might not—approach the challenges posed by climate change. Unfortunately, thus far, the current administration has not only ignored these challenges but also has taken steps to undermine efforts to combat them, such as announcing the U.S. intention to withdraw from the landmark Paris Agreement, rescinding the Clean Power Plan, and revoking former President Barack Obama’s Memorandum on Climate Change and National Security.<sup>1</sup> Presenting one small sliver of hope at this year’s Conference of the Parties, acting Assistant Secretary for the Bureau of Oceans and International Environmental and Scientific Affairs in the U.S. Department of State Judith Garber noted that though “the United States intends to withdraw [from the Paris Agreement] at the earliest opportunity, we remain open to the possibility of rejoining at a later date under terms more favorable to the American people.”<sup>2</sup> However, the overall picture remains bleak.

The steps back from climate mitigation and response could not come at a worse time, given the rapidly accumulating costs of a changing global climate. As detailed in a previous Center for American Progress report, since 2011, the United States has experienced 84 extreme weather events, which have resulted in some 2,000 deaths and cost a total of roughly \$675 billion in damages.<sup>3</sup> Additionally, according to the most recent Global Climate Risk Index, between 1997 and 2016, “more than 524 000 people died as a direct result of more than 11 000 extreme weather events” around the world, which cost about \$3.16 trillion in purchasing power parities.<sup>4</sup> These costs, however, are not distributed evenly around the world; they disproportionately fall on the most vulnerable and least equipped to adapt and rebuild. For instance, as the Planetary Security Initiative calculates, from 2004 to 2014, 58 percent of disaster deaths occurred in countries considered to be ranked among the top 30 most fragile states on the Fragile States Index.<sup>5</sup>

Despite the high costs of extreme weather events, investments aimed at reducing the risks posed by climate change abroad have been insufficient. As pointed out in a report by the U.N. High-Level Panel on Humanitarian Financing, for every \$100 spent on development aid projects, “just 40 cents has gone into protecting countries

from succumbing to natural disasters.” Driving the need for investment further, the report notes that “12 out of a group of 23 low-income countries received less than US\$ 10 million for DRR [Disaster Risk Reduction] over 20 years while receiving US\$ 5.6 billion in disaster response.”<sup>6</sup>

This administration has compounded this problem by moving to slash spending on international and domestic institutions and mechanisms that actively work to prevent costly climate and humanitarian crises.<sup>7</sup> However, it is clear that investing in preventive measures, whether they are aimed at conflict prevention or climate change resilience and mitigation, actually reduces costs in the long run. This is true monetarily and, more importantly, in terms of the cost to human lives and livelihoods. The United States should be making strategic investments to build resilience and allay costly future emergency responses—not cutting the already paltry investments in prevention.

In addition to these direct costs, there are also much higher indirect costs associated with climate-induced disasters, especially in fragile states. Climate change acts as a threat multiplier: Weather shocks and their resulting effects can create and exacerbate political, economic, and social tensions—potentially contributing to cycles of poverty, violence, and migration. As pointed out in a previous CAP report,<sup>8</sup> Syria starkly demonstrates this risk. A prolonged drought linked to climate change devastated farming and herding communities in key agricultural regions, leading hundreds of thousands of rural Syrians to move to the cities. While the Syrian war’s causes are complex, the dislocation caused by the drought—and the Syrian government’s poor response to the crisis—exacerbated social, economic, and political tensions in rural areas and the cities to which many rural families migrated. This discontent underpinned the initial protests and shaped the conditions that led to the outbreak of conflict in 2011 and the resulting refugee crisis. To date, an estimated 465,000 Syrians have been killed and more than 5.3 million Syrians have been displaced.<sup>9</sup>

Ignoring climate change and its effects will take an increasing toll on human lives and livelihoods, economic prosperity, and peace and security. To demonstrate these losses and the real security risks climate change can pose, this issue brief examines the nexus of climate change, water security, and food security in fragile states and highlights some of the threats to international peace and stability that can emerge—specifically, how these issues can drive instability, as well as how water and food are used during conflict as tools for recruitment and weapons of war.

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## State of water and food security in the world

The most pressing area of concern at the nexus of climate change and national security is water security.<sup>10</sup> As detailed by the World Bank, the effects of climate change have come and will continue to come through the water cycle; droughts, variable or unpredictable rainfall for agriculture or herding, pollution and contamination, and floods or extreme weather can have devastating impacts. The scarcity or surfeit of water can reverberate through crucial systems, affecting food production, pricing, and availability; energy production; transportation and supply chains; densely populated urban areas; and basic environmental systems. These effects will become more severe as populations, cities, and economies continue to grow and strain increasingly limited water resources. The World Bank estimates that roughly 1.6 billion people already live in countries with water scarcity, and that number could double in just two decades.<sup>11</sup>

Directly related to water security is the issue of food security. According to the Food and Agriculture Organization of the United Nations and others, global hunger increased in 2016 following a long decline, affecting 815 million people worldwide, compared with 777 million in 2015.<sup>12</sup> The deterioration of food security was particularly intense in areas experiencing conflict, most notably when compounded by extreme weather events affecting water supplies. Indeed, famine and/or crisis-level food insecurity situations were present in four countries undergoing conflict this year: South Sudan; Nigeria; Somalia; and Yemen.

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## Climate change, water, and food supplies as drivers of instability

The overlapping incidence of water and food insecurity and conflict is no coincidence; these trends interact with and contribute to one another. The impacts of water and food scarcity can undermine basic livelihoods and exacerbate social tensions, which can lead to instability and conflict if left unaddressed or when compounded by other social or political grievances. The consequences of these intersecting challenges vary greatly around the world as a result of a number of factors, such as political, social, and economic conditions; existing infrastructure; and policy decisions.

For instance, as water and food supplies become constrained, often as a result of extreme weather events spurred by climate change, social tensions over access to available resources can escalate and even turn violent. This is especially dangerous in fragile states that have a history of conflict and in areas where access to these resources has been politicized. The United Nations has found that while disputes over natural resources are rarely the sole driver of violent conflict, they certainly can be a contributing factor when other drivers are present, such as poverty, ethnic polarization, and poor governance.<sup>13</sup> Examples of such disputes can be found all over the world, including in Sudan,<sup>14</sup> Syria,<sup>15</sup> and Yemen,<sup>16</sup> among others.

## Water and food supplies as recruitment tools during conflict

In the lead-up to and following the eruption of conflicts, resources such as water and food, especially when they are constrained, are often also used as tools for manipulation and recruitment into violent groups. For instance, a recent *National Geographic* investigation, based on more than 100 interviews with farmers and agricultural officials over three years, concluded that poor government policies and climate-exacerbated drought across rural areas of Iraq and Syria made “many of the most environmentally damaged Sunni Arab villages ... some of the deep-pocketed jihadists’ foremost recruiting grounds” for the Islamic State (IS).<sup>17</sup> The report details that with each extreme weather event and harvest loss, recruiters would appear to distribute gifts, such as food or cash, eventually gaining returns on their investments. For instance, near Tikrit, IS gained “much more support from water-deprived communities than from their better-resourced peers.” While likely not the sole reason many in these communities joined the ranks of IS, the effects of water and food scarcity and the targeted presentation of alternatives by recruiters seems to have contributed to some decisions to join in these communities.

## Water and food supplies as weapons of war

In addition to being used as a recruitment tool, resources such as water and food can be weaponized by armed parties as a way to exert power and exact outcomes over other armed groups and/or civilian populations. For example, U.N. sanctions monitors recently reported to the U.N. Security Council that South Sudan President Salva Kiir and his government “deliberately prevented life-saving food assistance from reaching some citizens.” Such actions were described as “amount[ing] to using food as a weapon of war with the intent to inflict suffering on civilians the government views as opponents to its agenda.”<sup>18</sup>

Additionally, in Yemen, where almost 7 million are facing famine and 17 million are completely dependent on humanitarian aid, Saudi Arabia implemented a full blockade on all land, air, and sea ports, effectively cutting off critical humanitarian assistance.<sup>19</sup> While the blockade has been partially lifted on ports controlled by Saudi Arabia’s allies, humanitarian access is still being blocked in some areas to devastating effect. In addition to the active conflict, what makes the situation in Yemen particularly disastrous is that according to estimates from 2015, the country has the highest level of water scarcity in the world, with at least 50 percent of the population struggling daily to locate or purchase enough safe water to drink or grow their own food.<sup>20</sup>

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## U.S. and international community responses

While it does not appear that the current U.S. administration will do much to address climate change and the threats it poses, the U.S. nonfederal climate movement has flourished. To date, nonfederal climate initiatives and coalitions—which have proliferated in the wake of the Paris Agreement withdrawal announcement—have largely focused on domestic emissions reduction efforts.<sup>21</sup> But city, state, and private sector actors are beginning to recognize that international climate finance and cooperation are essential if they are to take up the mantle of U.S. climate leadership. This was evident in the unprecedented presence of U.S. nonfederal leaders during the 2017 U.N. climate summit in Bonn, Germany. If these nascent nonfederal climate initiatives—such as the U.S. Climate Alliance, for example, which represents nearly 40 percent of the U.S. economy—realize their latent diplomatic power, they could help keep water and food security on the global agenda.

Additionally, as a result of previous legislation, certain U.S. agencies have provided strategy documents on issues related to food and water security, which can provide ready-made blueprints for action when the political will returns at the federal level. Specifically, as mandated by the Senator Paul Simon Water for the World Act of 2014,<sup>22</sup> the U.S. Agency for International Development and the State Department released a Global Water Strategy to the public on November 15, 2017. The strategic objectives listed in the report include the following:

- Increasing sustainable access to safe drinking water and sanitation services, and the adoption of key hygiene behaviors;
- Encouraging the sound management and protection of freshwater resources;
- Promoting cooperation on shared waters; and,
- Strengthening water-sector governance, financing, and institutions.<sup>23</sup>

And while the strategy did not explicitly discuss how climate change will affect water—and by extension, food security—the release of this strategy is an important step forward and will hopefully be fully implemented in the years to come.

International fora for addressing these concerns include the United Nations, the World Bank, both the G-7 and the G-20, and regional bodies such as the European and African Unions. Each of these bodies, through various formats, concluded that climate change poses both direct and indirect threats to human lives and livelihoods, the environment, economic prosperity, and international peace and security. As such, they have taken steps to try to combat climate change—through the signing of the historic Paris Agreement,<sup>24</sup> the U.N. Sustainable Development Agenda,<sup>25</sup> and initiatives such as the G-7's report and platform on climate and fragility risks<sup>26</sup> and the G-20's Agricultural Market Information System (AMIS).<sup>27</sup> However, more work will be needed in the future, especially absent U.S. federal leadership.

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## Conclusion

For conflict-prone countries, particularly those most affected by climate change, it is critical to understand how strains on water and food supplies can overlap to drive instability and conflict. Climate impacts can disrupt livelihoods, contribute to decisions to migrate, and exacerbate social tensions. Access to scarce food and water supplies can also be used as a recruitment tool by violent groups, and even harnessed as a weapon of war. If individuals continue to ignore climate change and its impacts, such as those on critical water and food supplies, the consequences will only grow more dire. In a global environment of increasing uncertainty, it is essential to not only change behaviors that perpetuate climate change but also work to build more resilience to and mitigate the inevitable impacts the world will face as a result.

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