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Equitable and Just Hurricane and Disaster Preparedness Amid COVID-19

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Introduction and summary

This report contains a correction.

Countless communities across the United States have felt firsthand the often deadly and devastating impacts of hurricanes, from Hurricane Katrina, which left 1,833 people dead after slamming into the Gulf Coast in 2005, to Hurricane Sandy in 2012 and hurricanes Harvey, Irma, and Maria in 2017—some of the most costly tropical storms on record—along with many others. And recently, on August 27, 2020, Hurricane Laura lashed Louisiana with 150-mile-per-hour winds, killing six people and registering as one of the most powerful storms on record to strike the United States.¹ Hurricane Sally rapidly intensified shortly before making landfall on September 16, 2020, as a slow-moving Category 2 storm with 105 mph winds, dumping 20 to 30 inches of rainfall along hard-hit communities in western Florida and coastal Alabama.² All in all, as of September 23, 2020, the Atlantic hurricane season has produced 23 named storms—nearly double the season’s long-term average and exhausting, for only the second time in history, the National Hurricane Center’s list of 21 names.³ Yet the 2020 hurricane season represents uncharted territory, as storms are expected to continue making landfall in communities that are still struggling to contain COVID-19 outbreaks, maintain social distancing, and weather the historic pandemic-induced economic downturn—all amid a national reckoning with racial oppression and resource disparities in Black communities and other communities of color.

Despite the deadly consequences of both delaying the federal response to the pandemic at its outset and urging states to reopen their economies before it was safe to do so, President Donald Trump has boasted about the federal government’s response to COVID-19 and the nation’s preparedness for the 2020 hurricane season.⁴ This is confounding and troubling given the realities that people and state and local governments are facing on the ground, including surges in new COVID-19 cases; double-digit unemployment rates; massive state and local budget cuts due to the economic recession; and the onset of an unusually active hurricane season—caused by warmer ocean temperatures that are fueled by climate change—that continues to break storm formation records.⁵ In short, extreme weather disasters, which are expected to increase in severity with climate change, are likely to further compound the ongoing, historic confluence of economic and public health crises facing the United States.

To protect at-risk communities from additional hardship as cash-strapped state and local governments focus their resources on providing critical services during the pandemic, the federal government must invest in immediate disaster preparedness and mitigation efforts as well as commit to longer-term investments in strong, healthy, and climate change-ready communities, infrastructure, and coastal areas. The Coronavirus Aid, Relief, and Economic Security (CARES) Act provided an additional \$45 billion to the Federal Emergency Management Agency's (FEMA) Disaster Relief Fund, and although this more than doubles the amount of money available to support the president's emergency and disaster declarations,⁶ it is not nearly enough to respond to both the coronavirus crisis and extreme weather disasters. In 2019, climate and weather disasters alone caused a total of \$45 billion in damages in the United States.⁷ This year will see an even higher price tag. Experts have calculated that \$915 billion is needed to relieve the fiscal pressures that the COVID-19 pandemic has put on states, localities, tribes, and territories⁸—all during a year that is expected to be “one of the most active hurricane seasons on record,” the resource needs of which will likely strain state and local government finances further.⁹ Furthermore, President Trump's disaster relief memorandum to address unemployment insurance redirects previously appropriated funds from general disaster relief—including extreme weather, flooding, and the severe wildfires devastating the West—to provide lost wage assistance to individuals.¹⁰ While unemployment insurance is critical to support families during the pandemic-induced recession, the memorandum redirects \$44 billion in critically needed assistance from FEMA's Disaster Relief Fund at precisely the worst time and potentially diverts funds from hurricane relief assistance.¹¹

This hurricane season heightens the need for coordinated, comprehensive disaster planning and response from states, localities, and the federal government. In order to address the impending, deadly threat of climate-fueled extreme weather amid the COVID-19 crisis, and to ensure that the nation's most vulnerable communities have equitable resources to protect themselves and rebuild after storms, Congress must immediately take the following actions:

- Provide a second extension of the FEMA deadline for renewing flood insurance policies.
- Provide funds to help states, cities, and communities prepare for and equitably rebuild after disasters.
- Allocate \$20 billion for Superfund site cleanup and \$840 million to the Environmental Protection Agency's (EPA) Superfund Emergency Response and Removal Program in future economic recovery and stimulus plans.

- Allocate \$100 million to the National Institute of Environmental Health Science (NIEHS) Environmental Career Worker Training Program (ECWTP) in future economic recovery and stimulus plans.
- Create and capitalize a Healthy Communities and Resilient Infrastructure Fund (HCRIF) as part of a long-term economic recovery and stimulus plan.
- Require federal agencies to safeguard federal investments in flood-prone areas.

In addition, state and local governments must take the following steps to reduce the threat and cost of future extreme weather emergencies and disasters and protect vulnerable communities:

- Coordinate with the federal government to assist families in need with evacuation.
- Develop disaster rebuilding plans that prioritize affordable housing and resilient infrastructure.
- Implement equitable housing policies and just and resilient community development.
- Develop bold, equitable, and comprehensive plans to cut pollution and build resilience to climate change.

The Trump administration has denied the science behind both COVID-19 and climate change and, in doing so, has abdicated responsibility for the racial and class inequities that its policies have exacerbated in communities.¹² The resulting devastation could leave a long-lasting legacy, and state, local, and federal leaders must start repairing the damage now, including by taking the actions described above.

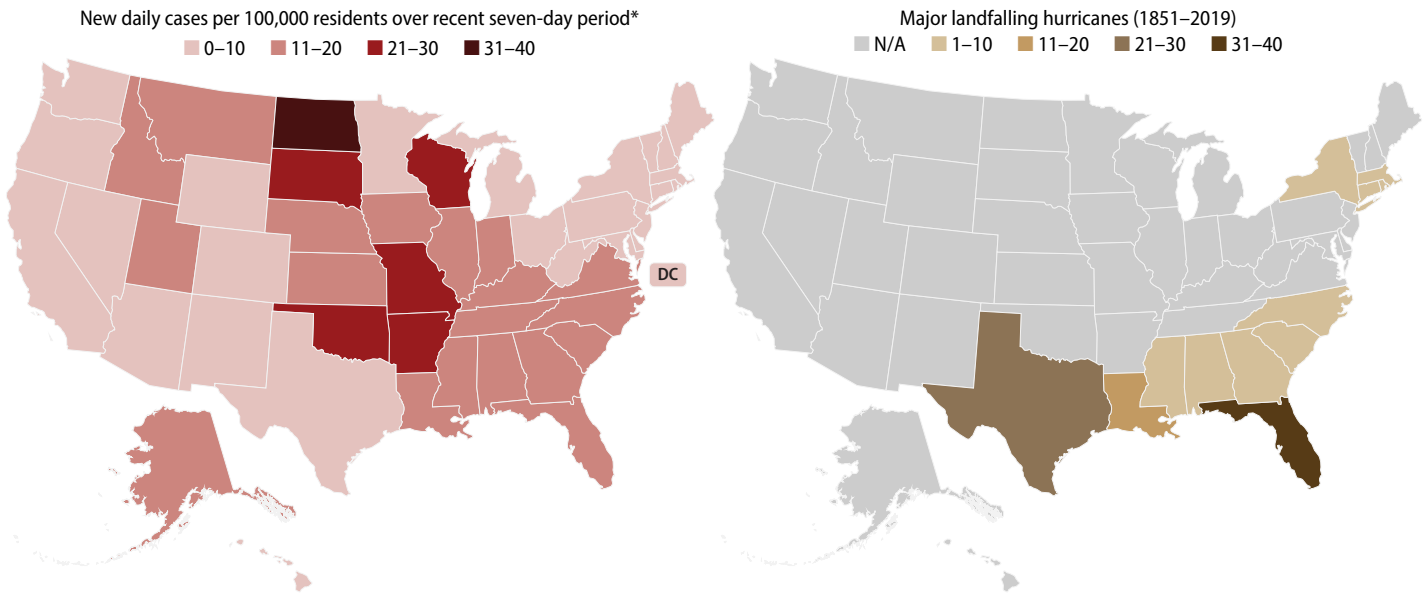
Background

When Hurricane Katrina hit Louisiana 15 years ago on August 29, 2005, it became one of the most deadly and costly storms in U.S. history and laid bare the deep socioeconomic divides between communities.¹³ Entire neighborhoods flooded, families lost power for months, and more than 1,800 people died.* While many families left New Orleans permanently, thousands more were forced to become refugees in their own city. Neighborhoods hit hardest were largely poor, Black communities. One study found that in parts of New Orleans during and in the immediate aftermath of the hurricane, the mortality rate among Black adults was two to four times higher than that among white adults.¹⁴ Property damage was similarly leveled inequitably. Black homeowners in the city were more than three times as likely to have been flooded during Katrina as white homeowners as a result of a history of discriminatory housing practices that relegated Black communities to lower-lying ground.¹⁵ Many of the hard-hit Black and brown communities have yet to fully recover from the disproportionate damage from Katrina and the blatantly inequitable recovery and rebuilding efforts.¹⁶

Without adequate support from the federal government, extreme weather this year will be especially devastating for low-income Black, Latinx, and Indigenous communities, which have experienced the highest contraction and death rates from COVID-19 and have also been hardest hit by the economic crisis. Black and Latinx people are nearly twice as likely to die from the virus as white people, according to Centers for Disease Control and Prevention (CDC) data. This is due to a variety of factors influenced by systemic racism.¹⁷ Persistent racial inequities and historical and modern trauma inflicted by the U.S. government in Indigenous communities have left American Indian and Alaskan Native populations with some of the highest risk for the disease in the country.¹⁸ In addition, communities of color have experienced COVID-19 hospitalization rates four to six times higher than those of white Americans,¹⁹ and their current unemployment rates are significantly higher as well. Many of these same communities are disproportionately impacted by pollution, which brings significant public health, quality of life, and economic consequences.²⁰

FIGURE 1
A snapshot of hurricane and COVID-19 risk

Top states by historical hurricane risk and recent COVID-19 hot spots



Top 7 states by historical major hurricane hits: COVID-19 cases over the peak week of Atlantic Basin hurricane season

Rank, by hurricane risk	State	Major hurricanes (1851–2019)	Average daily increase in new cases over recent seven-day period*	New daily cases per 100,000 residents over recent seven-day period*	Positive test rate over recent seven-day period (weighted average)*
1	Florida	38	2,494	11.6	12.50%
2	Texas	19	2,723	9.4	8.30%
3	Louisiana	17	687	14.8	4.20%
4	Mississippi	8	413	13.9	10.40%
5	North Carolina	7	1,123	10.7	4.50%
6	South Carolina	5	1,010	19.6	9.00%
7	Alabama	5	927	18.9	16.40%

* These data are from September 8 to September 14, 2020—the peak week of Atlantic Basin hurricane season.

Note: Hurricanes are considered “major” if they are at least a Category 3 according to the Saffir–Simpson hurricane wind scale. Only states that have been hit by at least five hurricanes are included in this analysis. Sources: COVID-19 daily case rates are based on the CAP Health team’s analysis of data from The COVID Tracking Project, “Home,” available at <https://covidtracking.com/> (last accessed September 2020). Hurricane direct hits on the mainland U.S. coastline and individual states are based on data from NOAA’s Atlantic Oceanographic and Meteorological Laboratory, “Frequently Asked Questions About Hurricanes: Hurricane Record-Setters & Ranking Tables: How Many Landfalling Hurricanes have Hit Each State?,” available at <https://www.aoml.noaa.gov/hrd-faq/#records-and-rankings>; Authors’ calculations of data from NOAA’s National Centers for Environmental Information, “Hurricanes and Tropical Storms - Annual 2019,” available at <https://www.ncdc.noaa.gov/sotc/tropical-cyclones/201913> (last accessed September 2020).

Storm preparation brings with it new dangers in states where the COVID-19 crisis is still a major threat to communities. Officials have expressed concern that due to COVID-19 and the economic recession, individuals will be more reluctant to—and have fewer resources to—evacuate from critical storm zones and coastal areas. In a study conducted by AAA of Florida and North Carolina residents, approximately 40 percent of residents in both states said that concerns about COVID-19 make them less likely to evacuate in the event of a major hurricane.²¹ The pandemic-induced recession has reduced the feasibility of basic preparations for those who are struggling financially. Many of the most at-risk families will likely end up being the most affected because stormproofing homes, evacuating, or stocking up on food, water, and gas ahead of time may be too expensive or impossible. The threat of additional surges in COVID-19 cases will follow any potential breakdown of social distancing precautions as communities evacuate, gather emergency supplies, and fill shelters to capacity.

On the mainland United States, Florida, Texas, Louisiana, Mississippi, and North Carolina have experienced the greatest numbers of landfalling major hurricanes since 1851.²² By historical records, these states are the most vulnerable to tropical storms. Worryingly, they are currently also among the states hardest hit by COVID-19 and are struggling to manage the outbreak.²³ In the seven-day period ending on September 14, 2020, Florida, Texas, Louisiana, and North Carolina were each among the top 10 states in the country in terms of number of new cases reported. That same week marked the peak of hurricane season in the Atlantic Basin, which, for only the second time in recorded history, contained five simultaneously active tropical cyclones. Over that same time period, Florida, Texas, Mississippi, and North Carolina all had positive test rates above the maximum level—5 percent—that the World Health Organization has recommended states to remain below before reopening.²⁴ Days later, Hurricane Sally made landfall in the Gulf as a Category 2 hurricane.²⁵ More recently, Florida and Texas reported the highest numbers of COVID-19 deaths in the seven-day period through September 24, 2020. And though hurricane activity in the Atlantic is currently in a lull, unusually high storm activity is expected to pick back up with two full months remaining in the season.²⁶

With the exception of Gov. Roy Cooper (D) in North Carolina, these hurricane-prone states have seen little leadership to control the virus and limited acceptance of climate science and its connection to extreme weather from their governments.²⁷ Although COVID-19 cases, death rates, and hot spots are shifting week to week, the fundamental lack of storm protections for the most hurricane-vulnerable and historically marginalized communities in this country remains worrisome and is a potential multiplier of death and destruction. To avoid needless loss of life and a decline in quality of life, Congress and state and local officials must be ready to act this hurricane season and to prepare communities for the next one.

The hurricane season's impact in the United States

The National Oceanic and Atmospheric Administration's (NOAA) updated extreme weather outlook for 2020, released in August, predicted an above-average season, with an 85 percent chance of 19 to 25 named storms and a likelihood that the United States will experience three to six major hurricanes with winds of 111 mph or higher.²⁸ This represents a sharp increase from NOAA's original prediction, released in May 2020, of a 70 percent chance of 13 to 19 named storms.²⁹ The start of the unusually active 2020 hurricane season has already broken records.³⁰ On July 4, the Atlantic witnessed its fifth named storm, a feat that typically does not occur until August 31.³¹ And the first named hurricane of the season, Hurricane Hanna, hit southern Texas in late July, causing extreme rain and flooding.

This year's extremely active hurricane season is linked to the growing severity of the climate crisis,³² predicted to increase the strength and intensity of hurricane seasons overall.³³ Research has found that between 1979 and 2017, climate change increased the likelihood of a given tropical cyclone becoming a Category 3 to 5 storm by roughly 8 percent per decade. The study also found that hurricanes are intensifying faster, as compared to historical records.³⁴ The past decade has seen exceptionally strong, record-setting tropical cyclones in the Atlantic and other ocean basins. Just this May, Super Cyclone Amphan broke records as the strongest storm ever recorded in the Bay of Bengal.³⁵

In a "wake-up call" for climate change's role in intensifying storms, some scientists are calling June an archaic start date for hurricane season.³⁶ Experts are calling to move the start of the season into mid-May or earlier, as 2020 marks the sixth year in a row that a named storm formed in the Atlantic before June.

How flooding affects community infrastructure

The infrastructure that communities rely on is not prepared for intensifying flooding from future storms. Scientists and experts say it is likely that climate change will intensify rainfall from hurricanes generated over the Atlantic Ocean.³⁷ Hurricanes also seem to be increasingly moving more slowly over land and consequently inundating communities

with rainfall for longer periods.³⁸ Additionally, even small increases in sea level rise fueled by climate change can significantly increase flooding from storm surge³⁹—by far the deadliest and most destructive aspect of hurricanes.⁴⁰

Although vulnerable coastal communities in the Southeast United States face the highest risk from hurricanes, studies have shown that storms are reaching farther inland, expanding the range of states and localities that will be affected, and further resource strapped, during peak hurricane season.⁴¹

Community infrastructure—including buildings, water, sewage systems, roads, bridges, affordable housing, hospitals, and the electric grid—is particularly vulnerable to hurricane damage.⁴² The threat of more intense and devastating storm-related flooding has disproportionately negative impacts on low-income communities and communities of color. These communities often live among less climate-resilient infrastructure that is in disrepair and ill-equipped to weather climate change effects and have fewer resources to stormproof their homes and finance and manage household evacuations and recovery.⁴³ Furthermore, these communities typically receive far less federal funding than is needed to rebuild their homes and communities in the wake of a disaster—much less enough to build back better to withstand the next one.⁴⁴ In fact, natural disasters and the ways in which federal disaster assistance are distributed increase wealth inequality.⁴⁵ Lastly, vulnerable communities often have limited access to affordable pollution-reducing clean energy and efficient appliances to reduce energy bills.⁴⁶

Even more worrisome are the lasting public health effects and damage that compromised hazardous waste sites can have on communities. In a July report by the Union of Concerned Scientists, researchers found that 800 hazardous Superfund sites near the Atlantic and Gulf coasts are at risk of flooding in the next 20 years.⁴⁷ Superfund sites are areas containing hazardous waste that has been dumped, abandoned, left exposed, or otherwise improperly managed. These areas, designated by the EPA, pose significant dangers to the millions of people who live within a few mile radius and are vulnerable to toxic waste exposure. These communities are more often home to people who are Black, Latinx, or Indigenous and who are often low income or linguistically isolated.⁴⁸ These communities' disproportionate exposure to local air pollutants has been linked to higher COVID-19 death rates, and residents face additional health risks as nearby Superfund sites are threatened by storm surge and flooding.

Disproportionate impact on vulnerable communities

The 15th anniversary of Hurricane Katrina on August 29—nearly seven months into the coronavirus pandemic—served as a painful reminder that both natural disasters and public health emergencies strike in uneven ways, with the heaviest toll falling on Black, Latinx, Indigenous, and low-income communities. To address the disproportionate impacts, state, local, and federal leaders must design policies and invest in communities and infrastructure in ways that intentionally and effectively address these inequalities.⁴⁹

Hurricane Katrina: A flood of oppression

The disproportionate impact of Hurricane Katrina on low-income Black residents stemmed largely from the combination of racial injustices and economic inequalities embedded in pre-hurricane policies and disaster preparations as well as in the treatment of vulnerable communities during the hurricane and its aftermath. For example, the U.S. Army Corps of Engineers used a flawed design, outdated data, and poor-quality materials to build the levees surrounding the city’s Black and low-income communities to save money. The city government responsible for levee maintenance failed to repair many dilapidated levees, despite warnings.⁵⁰ In addition, research has shown that Black residents were less likely than white residents to have evacuated during the storm because they could not afford to do so, and the state, federal, and local governments were slow to help evacuate those in need.⁵¹ And Black survivors of Katrina have since reported higher rates of displacement from their communities, unemployment, psychological distress, and general life disruption than white survivors.⁵²

New Orleans is still reckoning with these long-standing inequalities as well as the long-term and devastating effects of Hurricane Katrina on many city residents. As Dr. Beverly Wright of the Deep South Center for Environmental Justice⁵³ shared in a video interview with the Equitable and Just National Climate Platform: “I live in New Orleans, Louisiana and I was affected by Katrina. I lost everything and so did every member of my family. I just remember how painful it was going through the fight of being able to return home. It’s probably one of the worst examples of destroying an indigenous community and watching it be overtaken by gentrification [and] [p]eople who don’t understand the culture.”⁵⁴

According to Vox, “A decade after Hurricane Katrina, the New Orleans metro area still hasn’t recovered from the storm. Although the area has grown since 2006, it holds 134,000 fewer residents, more than 39,000 fewer housing units, and nearly 2,000 fewer business establishments since Katrina hit.”⁵⁵

As Hurricane Katrina and the countless major storms making landfall across the Gulf of Mexico and Atlantic Coast in recent years have painfully revealed, low-income communities, communities of color, and people experiencing homelessness are particularly vulnerable to extreme weather events.⁵⁶ Many national, state, and local disaster recovery and resilience policies fail to adequately address the ongoing vulnerabilities experienced by low-income households.⁵⁷ When extreme weather hits, families facing these conditions can be driven deeper into economic distress. Analysis shows that housing assistance after extreme weather events often favors middle-class households and homeowners.⁵⁸ Extreme weather also exacerbates the housing and homelessness crises in the United States, driving up rates of people experiencing homelessness, damaging the already limited stock of affordable housing, and causing rents to skyrocket due to sudden supply shocks.⁵⁹

In the aftermath of Hurricane Katrina, homeowners received aid based on the value of their homes instead of the cost of rehabilitation. Under this formula, higher-income households that owned higher-valued homes were likely to receive more aid than lower-income households who were often in greater need.⁶⁰ In addition, the storm and subsequent development decisions virtually eradicated the city's affordable housing stock. After Katrina, the U.S. Department of Housing and Urban Development demolished more than 3,000 units of affordable public housing despite findings that there was an urgent need for more than 30,000 affordable rental apartments in New Orleans in the immediate aftermath of the storm—and despite the congressional mandate to preserve all housing in New Orleans. To date, a majority of the damaged rental property has not been replaced.⁶¹ Thus, post-Katrina, demand for the remaining supply of rental housing increased, and as a result, rents skyrocketed across the metropolitan area. Since Katrina, rents in New Orleans have increased by approximately 44 percent, compared with 4 percent nationally during this same period.⁶²

Hurricane Katrina is one among countless examples of how extreme weather both exposes and deepens racial economic disparities. In the midst of the COVID-19 pandemic and economic crises and their disproportionate impacts on low-income areas and communities of color, the disparate impacts of more extreme weather in these communities are likely to be heightened as communities and state, local, and federal leaders are forced to cope with high unemployment, COVID-19 infections and spread, disaster preparedness and rebuilding, and climate change all at the same time.

Responding to extreme weather disasters during the pandemic

Since 1979, FEMA has been tasked with responding to disasters and spearheading recovery efforts,⁶³ but 2020's dual threats of COVID-19 and climate-induced extreme weather stand to present a challenge unprecedented in the organization's history. In response, FEMA has released its "COVID-19 Pandemic Operational Guidance for the 2020 Hurricane Season" for state, local, and tribal officials' to use as they prepare their response and recovery operations, as well as guidance for U.S. residents on "personal preparedness" during the pandemic.⁶⁴ In its new guidance, FEMA has called on local officials to find more shelter space, accommodate the need for social distancing, and develop a plan to shelter people with COVID-19. FEMA also calls for state and local governments to find backup sources for supplies, distribute supplies without physical contact, and prevent disaster survivors from gathering in groups—and do all that with "diminished support" from volunteers, a critical resource for states and localities. Disaster volunteers worked 3.5 million hours during the 2017 hurricane season. If an extreme weather event hits a part of the country that is under large-scale quarantine, it is likely that far fewer volunteers will be available to support disaster response.⁶⁵

FEMA has played an important role in responding to COVID-19, deploying more than 3,000 staff nationwide and running its first 50-state disaster response effort. However, the high-contact operations required during extreme weather response pose additional threats to agency staff and risk causing COVID-19 cases to spike in areas impacted by hurricanes. According to the Sierra Club, the arrival of out-of-state utility workers and FEMA staff during recovery and response operations, combined with a population made vulnerable by the storm, "could make for a petri dish of disease."⁶⁶

In response to the financial pressures caused by COVID-19, FEMA temporarily extended the grace period for renewals of FEMA-provided flood insurance renewals from 30 days to 120 days for policies with an expiration date between February 13 and June 15.⁶⁷ But since that extension date has passed, officials are increasingly concerned about the onset of hurricane season. Without flood insurance, households will lose their first line of defense against an extreme weather disaster, since flood insurance payments are often essential for individuals and families.⁶⁸

Recommendations to support communities threatened by hurricane season amid COVID-19

As the 2020 hurricane season ramps up, both the federal government and state and local officials should take several immediate steps to prepare for and respond to hurricanes and other extreme weather events during the COVID-19 pandemic and beyond, including the actions described below.

6 ways Congress and the federal government can support equitable disaster preparedness, response, and rebuilding

To address the immediate threat of climate-induced extreme weather and the unique dangers of hurricane response during a pandemic that is disproportionately impacting communities of color and low-income communities, Congress and the federal government should take the following steps.

Extend the deadline for households to renew their flood insurance

FEMA should immediately further extend the grace period for flood insurance renewals until the end of this year and consider extending it further as the updated deadline approaches, if many households are still unable to afford to renew their policies because of lost income and the economic crisis. If FEMA does not extend the grace period for flood insurance renewals, Congress should direct FEMA to do so immediately to reduce the risk of intensifying the economic hardships that households are already experiencing as a result of the pandemic in the event that an extreme weather disaster struck when they did not have an active flood insurance policy.

Help cities, communities, and states prepare for and equitably rebuild after disasters

As part of economic recovery and stimulus, Congress should provide funding for several of FEMA's most important and underfunded programs. The Center for American Progress and the Coalition for Clean Energy and Healthy Communities recommend that Congress provide \$4 billion for FEMA's Building Resilient Infrastructure and Communities (BRIC) program (formerly called the Pre-Disaster Mitigation program);

\$1 billion for FEMA's Hazard Mitigation Grant Program (HMGP); \$500 million per year for FEMA's Flood Mitigation Assistance Grant Program; and \$400 million per year for FEMA's Risk Mapping, Assessment and Planning program.⁶⁹ Congress should ensure that at least half of BRIC and HMGP funding goes to tribal communities, communities of color, and economically disadvantaged communities. These investments will allow FEMA to support greater, more equitable hurricane response measures in a time of growing inequities from climate change, extreme weather, and COVID-19.

In addition, Congress must design future disaster aid packages to prioritize rebuilding in low-income communities and communities of color. For example, Congress can help ensure that rebuilding affordable housing is not overlooked by requiring recipients of Community Development Block Grants-Disaster Recovery assistance to direct relief dollars toward the areas of greatest unmet need. Congress should also encourage FEMA to dedicate special funding for the rehabilitation of public housing stock. After Hurricane Sandy, FEMA dedicated \$3 billion toward rebuilding public housing units in New York City that has been used for to repair and floodproof more than 200 buildings.⁷⁰ Congress should also support home modifications to reduce flood risks for housing located in or near floodplains. For example, in New York City, there are 36,000 buildings, including 26,000 single- and multi-family homes that house 218,000 residents who are located within the current effective floodplain and at risk of costly flood damages.⁷¹

In addition, Congress must reduce the burden on cities and states in order to comply with different rules and requirements tied to various federal funding streams by prioritizing the requirements of the primary funding sources and requiring secondary funding sources to align their requirements with the primary funder in the event of a contradiction. For example, the U.S. Department of Housing and Urban Development requires its funding recipients to offer low-income residents job training, jobs, and contracting opportunities tied to community development projects in their neighborhoods,⁷² whereas other federal agencies limit or prohibit local hiring practices.⁷³ These differences can prevent state and local officials from using multiple sources of federal funding to support the same disaster rebuilding or community development project, complicating implementation. Ultimately, Congress should require federal departments and agencies to support local hiring through their grants and contracts.

Lastly, by creating incentives for state and local governments to rebuild infrastructure and communities in ways that can withstand future climate change and extreme weather impacts, Congress can reduce the burden on taxpayers to foot the bill for rebuilding the same structures over and over again.⁷⁴ For example, Congress should direct FEMA to create a new federal disaster deductible to help lower the public health risks and costs

of future disasters and provide an incentive for states and municipalities to protect communities and taxpayers from dangerous and costly disasters before they happen. A disaster deductible would establish a predetermined threshold that states would need to meet to access disaster aid through FEMA's Public Assistance Program. States could reduce their deductible obligation by investing in disaster risk-reduction strategies, such as those described above. The deductible would help motivate smart state and local investments in disaster resilience rather than rewarding risky development and lax land-use and building codes that drive up disaster damages and recovery costs.⁷⁵

Require federal agencies to safeguard federal investments in flood-prone areas

In 2017, President Trump rescinded a Federal Flood Risk Management Standard that required federally funded infrastructure projects to be built to a higher standard to withstand extreme weather and climate change, leaving federal investments funded by taxpayers highly vulnerable to flood risks. In 2018, the John S. McCain National Defense Authorization Act (NDAA) for fiscal year 2019 was signed into law, requiring the U.S. Department of Defense to assess and safeguard against flood risks, power outages, and other extreme weather damage to military installations constructed in flood-prone areas.⁷⁶ Building on the NDAA, Congress should require federal agencies to plan for future flood risk as they consider using taxpayer dollars to build facilities and infrastructure in flood-prone areas. Specifically, Congress must require agencies to use the best available information, including FEMA maps, state and local flood assessments, and other relevant information to identify and protect against future flooding. Where relevant data are not available, Congress should direct agencies to assume higher flood levels throughout the project lifetime and take steps to mitigate flood damages. Congress should give agencies flexibility to use the most effective and sensible flood risk management strategies, including nature-based solutions, structural elevation, and other resilience strategies. Forward-looking actions to reduce flood risks not only save taxpayers money but also are widely supported. According to recent polling by the Pew Charitable Trusts, 85 percent of Americans—including 80 percent of Republicans, 91 percent of Democrats, and 87 percent of independents—are in favor of requiring federally funded projects in flood-prone areas to be built to withstand future flooding.⁷⁷

Allocate \$20 billion for Superfund site cleanup, and \$840 million to the EPA's Superfund Emergency Response and Removal Program

According to the federal government's own research, 60 percent of Superfund sites are at risk of the impacts of climate change and extreme weather.⁷⁸ The communities on the frontlines of Superfund and other industrial sites are overwhelmingly low income and communities of color, and these sites can create high risks for communities of color before, during, and after hurricanes and other extreme weather events. After Hurricane Laura in August 2020, a chemical plant in Lake Charles caught fire, triggering a chlorine leak and large plumes of toxic smoke and a shelter-in-place order.⁷⁹

The EPA's Superfund Emergency Response and Removal Program helps to protect the health and safety of these communities from oil spills and risks from potential releases of toxic substances before, during, and after natural disasters and other emergencies. This program also creates jobs in remediation, removal, cleanup, and emergency response. CAP and the Coalition for Clean Energy and Healthy Communities recommend that Congress provide \$840 million to the program in an economic recovery and stimulus bill. In addition, the coalition and the co-authors of the Equitable and Just National Climate Platform have called for Congress to include in the next relief or economic stimulus bill \$20 billion for Superfund site cleanup to address the fact that, as the climate continues to change, more intense hurricanes and rising seas will increasingly threaten these toxic sites capable of heavily polluting nearby communities.⁸⁰

Allocate \$100 million to the NIEHS ECWTP

As recommended by the co-authors of the Equitable and Just National Climate Platform in their March letter to Congress offering recommendations for an equitable COVID-19 response and economic recovery, Congress should provide \$100 million for the National Institute of Environmental Health Science's Environmental Career Worker Training Program, which provides job and safety training for members of communities of color and economically disadvantaged communities to secure jobs in environmental restoration, construction, the handling of hazardous materials and waste, and emergency response.⁸¹ A 2015 report assessing the program found that "an annual federal investment of \$3.5 million in the ECWTP generates a \$100 million return."⁸² The report also found that the program increases the earning potential of those trained, increases tax revenue, lowers workplace injury and hiring costs, and reduces crime. As Congress seeks ways to equitably expand employment, support a just economic recovery, and build back better, increasing funding for the ECWTP is an obvious choice.

Create and capitalize an HCRIF

As part of a longer-term economic recovery and stimulus plan, Congress should create a Healthy Communities and Resilient Infrastructure Fund (HCRIF) to mobilize massive new investment in pollution-free and affordable energy and transportation options; energy efficiency improvements; smart grids, energy storage, and improved electricity transmission and distribution; climate change-ready infrastructure; and flood protections. The HCRIF would be similar to the State Future Funds idea proposed by the Center for American Progress in 2015 to support clean, affordable energy and transportation options and other infrastructure to improve community health and safety,⁸³ as well as the Clean Infrastructure Bank proposed by the Evergreen Project and the Center for Data Progress.⁸⁴

Of the fund's investments, 60 percent should be invested in economically disadvantaged communities, tribal communities, and communities of color. Far too often, these communities have faced systemic racism and injustice, including exposure to high levels of toxic pollution. These same communities often have the greatest need for infrastructure improvements and are the most vulnerable to emergencies and disasters, including hurricanes and other events fueled by climate change. The fund would support projects to reduce greenhouse gas (GHG) emissions and local pollution through the use of clean renewable energy sources, lower energy bills through energy efficiency measures, provide sustainable transportation options that increase access to economic opportunities, and reduce flood risks and future extreme weather and other emergencies and disasters. These projects should be designed and implemented through community-driven planning that protects against community displacement.

The concept of creating a fund to support healthy communities and resilient infrastructure is strongly supported in Congress and across the country. For example, several Democratic members of the House and Senate have drafted legislation that would create a National Climate Bank to drive investment into building renewable energy, clean transportation, and climate-ready communities, particularly in economically disadvantaged areas, tribal communities, and communities of color.⁸⁵ In July 2019, Sens. Edward Markey (D-MA) and Chris Van Hollen (D-MD) introduced the National Climate Bank Act,⁸⁶ and Rep. Debbie Dingell (D-MI) introduced similar legislation in the House in December 2019.⁸⁷ The CLEAN Future Act—introduced in January by Energy and Commerce Committee Chairman Frank Pallone, Environment and Climate Change Subcommittee Chairman Paul Tonko, and Energy Subcommittee Chairman Bobby L. Rush—would also create a National Climate Bank if enacted.⁸⁸

4 ways state and local governments can create just, safe, and healthy communities

In addition to the congressional actions described above, state and local governments should take the following steps to address the acute risks of extreme weather.

Assist families in need with evacuation

Under any circumstances, long-standing economic inequality has made evacuating out of harm's way too costly for many families. During a pandemic-induced economic crisis that has left many people without jobs or stable income, evacuating to safety is likely to be difficult or impossible to afford for even more people. State and local governments must move quickly to help evacuate people safely to avoid needless loss of life during a time when the nation has already endured the loss of more than

200,000 people to COVID-19.⁸⁹ For example, in advance of Hurricane Laura, some state and local officials provided buses to help people heed mandatory evacuation orders and provided hotel rooms to avoid overcrowding shelters.⁹⁰ States can also access federal grant assistance for evacuation and sheltering through FEMA's Public Assistance Program.⁹¹ While many states have laws to execute evacuation orders, traffic control, and evacuation to shelters, few states have plans in place for comprehensive community outreach and education on evacuation programs, and few state evacuation laws require public notice requirements. A 2018 CDC report on hurricane evacuation policies concluded that "state officials need to analyze their strategies for evacuation policies so that they address the safety and well-being of the whole community."⁹² States must ensure that evacuation plans are accessible through alternative-language public education programs and include protections for at-risk populations, people with disabilities, senior citizens, and those with economic insecurity. Authorities in hurricane-prone states must develop and implement equitable evacuation policies to enhance community resiliency and protect and safeguard at-risk populations.

The federal government must also play a substantial role in providing evacuation support, given that state and local budgets have been decimated by the COVID-19 pandemic and economic crisis. Over the longer term, to ensure people have the financial means to evacuate ahead of future hurricanes and other extreme weather events, state, local, and federal leaders must dismantle income and racial inequality, including by raising the minimum wage, expanding access to economic opportunities through workforce training programs; building affordable housing in or near business districts; and expanding home ownership among Black families, including by improving access to Community Development Financial Institutions (CDFIs), among other steps.⁹³

Develop disaster rebuilding plans that prioritize affordable housing and resilient infrastructure

To be ready for future disasters, state and local governments must create disaster rebuilding plans that prioritize rebuilding quality and energy-efficient affordable housing to avoid exacerbating the affordable housing crisis; increasing economic inequalities; and forcing residents to move and leave jobs, schools, and social support systems behind.⁹⁴ State and local leaders must also invest in infrastructure that is designed to higher standards to withstand extreme weather threats, with a focus on communities that need it the most.⁹⁵ For example, after Superstorm Sandy, New York City created a comprehensive set of climate resilience design guidelines to ensure that major projects in the region are built to withstand climate change effects and extreme weather events.⁹⁶

The guidelines were most recently updated in September 2020 and outline steps to incorporate “forward-looking climate change data into the design of City facilities” and are intended to “become an integral part of the project planning process for City agencies and designers.”⁹⁷ Similarly, after Hurricane Andrew destroyed more than 125,000 homes in Florida and left roughly 250,000 people homeless in 1992, Florida state officials and the legislature adopted and implemented a statewide building code requiring sturdier construction of windows, roofs, doors, and supporting pillars to withstand hurricane-force winds.⁹⁸

By creating standards for building clean and resilient infrastructure and housing, state leaders can ensure that infrastructure, residential and commercial buildings, and housing are built to withstand long-term extreme weather and climate change disasters and that all new building follows guidelines for zero-carbon buildings and energy efficiency. State legislatures in regions at risk of further extreme weather should pass legislation that requires new or rebuilt development—and any infrastructure investments—to take into account the risks and scientific realities of future sea level rise.⁹⁹

State and local leaders should also use federal disaster rebuilding aid to invest in green infrastructure, including parks, green spaces, tree canopy expansion, and wetland restoration. Infrastructure investments should be climate smart, resilient, and aimed at reducing flood and heat risks, particularly in low-income communities and communities of color, which historically have been deprived of access to natural areas as a result of redlining and discriminatory community planning.¹⁰⁰

Implement equitable housing policies and just and resilient community development

State leaders should expand state investments in rental assistance and affordable housing development, increase data collection on homelessness risks, and prioritize hazard and disaster risk-reduction investments in frontline communities before and after extreme weather disasters. States and local leaders can address safety and affordability concerns by building in locations outside of flood risk zones and proximate to high-quality economic and educational opportunities as well as health services and networks critical to social cohesion and well-being. Safe and affordable housing developments should be paired with homeownership assistance efforts to target renters, who make up a substantial portion of those living in many low-income communities and communities of color.¹⁰¹

Local officials can leverage federal and state funding to buy properties that have been repeatedly flooded by extreme weather disasters and restore and repurpose the land.

Public and voluntary buyout programs can help residents in at-risk areas who are willing to sell and move to safer ground, so long as these programs are designed to help address affordable housing shortages.¹⁰² These buyout programs should be coordinated and done through inclusive processes, allowing all partners to find beneficial reuses of land—such as creating recreational areas and restoring streambanks or wetlands—and ensure risk reduction benefits. County and city leaders should also support new investments in high-density affordable housing units to help multiple families participating in a buyout program from the same community who want to stay together.¹⁰³

Develop bold, equitable, and comprehensive plans to cut pollution and build resilience to climate change

State and local governments must take immediate action to reduce GHG emissions that are causing climate change as well as local pollutants that threaten public health and safety. For example, state and local leaders can commit to achieving a 100 percent clean energy future—a commitment that 15 states and territories have already adopted.¹⁰⁴ States must also develop plans to build a pollution-free, just, and equitable clean energy economy, ensuring that all communities can access affordable and pollution-free energy options.¹⁰⁵ State and local leaders can meet this goal by investing in public transit, electric buses, smart growth, clean renewable energy, and energy efficiency improvements in homes and buildings, among other strategies, with a focus on lowering energy bills and improving air quality for economically disadvantaged communities and communities of color.¹⁰⁶ Lastly, state and local leaders must develop comprehensive and equitable resilience plans to build safe, healthy, and climate change-ready communities and infrastructure. These plans should prioritize strategies and investments that address historic racial and economic inequality, create jobs, and reduce climate change and other public health threats in the most vulnerable communities.¹⁰⁷

Conclusion

As the pandemic rages on and climate change fuels more intense extreme weather, the Trump administration has continued to deny the science of both at every turn. This has left low-income communities, tribal communities, and communities of color dangerously unprepared and underresourced for the historic compounding threats of a viral pandemic; a severe economic and employment contraction; and a record-breaking hurricane season. Congress must act now to support these communities—which, historically, have been left behind time and time again—in future economic stimulus and disaster response and recovery packages. State and local leaders must also do their part by directing disaster rebuilding assistance and economic stimulus funding to prepare for more extreme weather emergencies and disasters; build climate change-ready affordable housing and infrastructure; and cut GHGs and local pollution to reduce climate change and public health threats, particularly in the most vulnerable communities.

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****Correction, October 1, 2020:** This report has been updated to correctly state the number of people who died in the aftermath of Hurricane Katrina.*

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As progressives, we believe America should be a land of boundless opportunity, where people can climb the ladder of economic mobility. We believe we owe it to future generations to protect the planet and promote peace and shared global prosperity.

And we believe an effective government can earn the trust of the American people, champion the common good over narrow self-interest, and harness the strength of our diversity.

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We develop new policy ideas, challenge the media to cover the issues that truly matter, and shape the national debate. With policy teams in major issue areas, American Progress can think creatively at the cross-section of traditional boundaries to develop ideas for policymakers that lead to real change. By employing an extensive communications and outreach effort that we adapt to a rapidly changing media landscape, we move our ideas aggressively in the national policy debate.

