

## **Resiliency and Pre-Disaster Mitigation: Investments that Benefit American Taxpayers**

### **Executive Summary**

The SmarterSafer Coalition represents a diverse makeup of conservation and environmental groups, taxpayer-focused organizations, insurance and reinsurance interests, and housing advocates. Current policies surrounding extreme weather events have negative consequences for Americans. The following paper highlights the impacts natural disasters have on communities, the environment, and the economy. The data presented shows the economic burdens that taxpayers face due to the amount of post-disaster government spending on natural disasters, including numerous references to factual, nonpartisan sources that provide statistics on future climate outlook, government spending on disaster recovery efforts, and the benefits of employing pre-disaster mitigation and resiliency measures. Accordingly, SmarterSafer provides recommendations focused on utilizing strategies that emphasize pre-disaster mitigation and resiliency. These proposed solutions will not only benefit taxpayers, but also help to address broader challenges surrounding climate change.

### ***Defining Weather and Climate***

SmarterSafer provides definitions to distinguish the terms “weather” and “climate.” We note that weather is a short-term observation of atmospheric conditions in a specific period overtime, while the accumulation of weather patterns overtime defines climate. This distinction is important as temperatures in the U.S. increase, causing coastal cities to face increasing dangers due to rising sea levels.

### ***Financial Stress from Extreme Weather Patterns and Events***

Statistics indicate a staggering increase in government spending on post-disaster recovery. Data shows the amount spent on natural disasters has more than quintupled since the 1980s, and the consequences of climate change have the potential to cost the world economy an estimated \$178 trillion dollars by the year 2070. These exponential costs have direct negative consequences to American taxpayers, as well as the global economy.

### ***Implications for Taxpayers***

The compiled evidence details government spending on post-disaster recovery and its direct impact on the pockets of Americans. SmarterSafer highlights how in recent years the amount of emergency disaster relief funding has increased beyond the rolling average and cost taxpayers billions of dollars. Data indicates this number will only continue to grow as the frequency and severity of natural disasters increase.

Disaster recovery affects every aspect of the U.S. economy, including financial risk to the federal government. For example, if proactive steps are not taken, billions of taxpayer dollars may need to be spent on post-disaster recovery efforts in military installations due to outdated infrastructure. Overall, the country’s current infrastructure was not built to withstand the current

risks from climate change and is therefore vulnerable to more severe natural disasters. Data clearly shows that every \$1 invested in pre-disaster mitigation saves up to \$13 in federal spending, and this paper highlights potential nature-based solution projects that have the potential to save American taxpayers billions of dollars.

### ***Conservation, Recreation, and the Evolving Climate***

Natural disasters greatly harm conservation efforts. SmarterSafer highlights potential policy solutions to support the hunting, fishing, wildlife, and forestry sectors of the U.S. economy, including the need for Congressional action as natural disasters increase in frequency and severity. We support efforts to improve pre-disaster mitigation and resilience, and note the inclusion of these priorities in Speaker Kevin McCarthy's Commitment to America Plan. SmarterSafer also thoroughly endorses long-term reforms to the National Flood Insurance Program (NFIP) as a cost-saving measure.

### ***Going Forward***

American households face natural disasters that not only affect our communities physically, but also financially. SmarterSafer underscores the need for Congress to be proactive in efforts to combat climate change and natural disasters by investing in and incentivizing pre-disaster mitigation, expediting aid in an equitable manner, and promoting public-private partnerships to offset risk to the taxpayer.

## Resiliency and Pre-Disaster Mitigation: Investments that Benefit American Taxpayers

### Introduction

Extreme weather events fueled by climate change impacts take a devastating toll on communities across the nation. Extreme weather events such as flooding, wildfires, hurricanes, and tornadoes impact people in all corners of the nation and result in significant federal spending. From longer droughts impacting agriculture, to more severe inland flooding from hurricanes in coastal states, these catastrophic events are reaching farther into the nation and exposing more communities to risk while increasing the burden to the average taxpayer.

Severe weather and its related events have adverse effects on microeconomic and macroeconomic growth and stability, which also significantly impact taxpayers. Fortunately, there are solutions that will save taxpayer dollars while simultaneously offering better protection to the taxpayer and communities at large. Congress must act swiftly and immediately to invest in resiliency and pre-disaster mitigation to safeguard economic well-being and protect the American tax base of present and future generations.

### Defining Weather and Climate

Weather and climate are not the same, and the difference can be identified in their measurements. Weather is a short-term observation of atmospheric conditions in a specific period overtime. It is the accumulation of weather patterns overtime that define climate.<sup>1</sup> This distinction is important to understand as it reveals a delayed effect of climate change. As we fight today's extreme climate, we must continue to innovate and be prepared to solve tomorrow's weather-related challenges.<sup>2</sup>

To combat climate trends, it is important to identify how they have changed and develop a better understanding of forward-looking meteorological data; these factors are key to implementing resiliency measures. In June 2022, the National Oceanic and Atmospheric Administration (NOAA) found that "Earth's temperature ha[d] risen by 0.14° Fahrenheit (0.08° Celsius) per decade since 1880, but the rate of warming since 1981 is more than twice that: 0.32° F (0.18° C) per decade."<sup>3</sup> The National Aeronautics and Space Administration (NASA) has found that global temperature anomalies have been on the rise since 1880.<sup>4</sup> Debate among conservatives will continue on how much of this rise is anthropogenic in origin, whether the trend will abate, and how severe the impact will be. It remains clear, however, that the well-being of many coastal cities is endangered by rising sea levels, while many weather emergencies such as floods, droughts, extreme heat, and storms are becoming costlier to alleviate.<sup>5</sup> As such, it is essential for

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<sup>1</sup> <https://www.ncei.noaa.gov/news/weather-vs-climate>

<sup>2</sup> [https://earth.org/data\\_visualization/the-time-lag-of-climate-change/](https://earth.org/data_visualization/the-time-lag-of-climate-change/)

<sup>3</sup> <https://www.climate.gov/news-features/understanding-climate/climate-change-global-temperature#:~:text=According%20to%20NOAA's%202021%20Annual,more%20than%20twice%20that%20rate.>

<sup>4</sup> <https://svs.gsfc.nasa.gov/4964>

<sup>5</sup> <https://www.nrdc.org/stories/are-effects-global-warming-really-bad>

lawmakers to craft policy solutions that factor in climate but are truly focused on taxpayer savings.

## **Financial Stress From Extreme Weather Patterns and Events**

Extreme weather patterns and events have compounding consequences. Not only are climate-related disasters likely to increase in intensity and destruction over time, but they are also expected to decrease economic output, lowering gross domestic product and taxable revenue as a result.<sup>6</sup> This leaves the government less financially prepared for what are expected to be more expensive disasters in the future. Steve Ellis, President for Taxpayers for Common Sense, notes in a recent article, “On a cost-adjusted basis, billion-dollar disasters in the U.S. have increased from 2.9 per year, costing the federal government an average of \$17.8 billion in the 1980s, to 16.2 per year at an average annual cost of \$121.4 billion from 2016-2020”.<sup>7</sup> Furthermore, Deloitte found that leaving climate change unmitigated will cost the global economy \$178 trillion between 2021 and 2070, with the U.S. economy expected to contract by \$14.5 trillion in the same time frame.<sup>8</sup> The Office of Management and Budget (OMB) found that climate change could cost the federal budget \$2 trillion per year by the end of the century and may propel government spending towards \$128 billion annually on coastal disaster relief, flood insurance, crop insurance, healthcare insurance, wild land fire suppression, and flooding at federal facilities.<sup>9</sup>

## **Implications for Taxpayers**

### *Taxpayer Exposure*

Natural disasters financially affect not only those who are physically and geographically impacted, but every single American taxpayer, whose taxes go towards post-disaster response and recovery efforts. In 2017, NOAA estimated that the total damages from 2017 natural disasters were over \$300 billion.<sup>10</sup> These costs have only grown in recent years and are projected to continue to grow as climate change intensifies.

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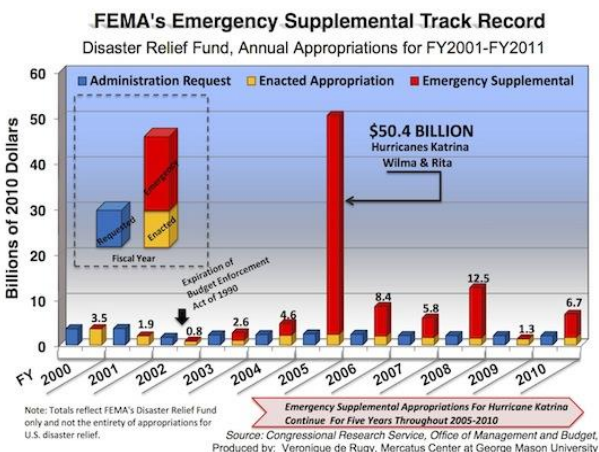
<sup>6</sup> [https://www.whitehouse.gov/wp-content/uploads/2022/04/OMB\\_Climate\\_Risk\\_Exposure\\_2022.pdf](https://www.whitehouse.gov/wp-content/uploads/2022/04/OMB_Climate_Risk_Exposure_2022.pdf)

<sup>7</sup> <https://www.newsday.com/opinion/commentary/guest-essays/storms-hurricanes-disaster-response-presponding-gwk1lea>

<sup>8</sup> <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/gx-global-turning-point-report.pdf>

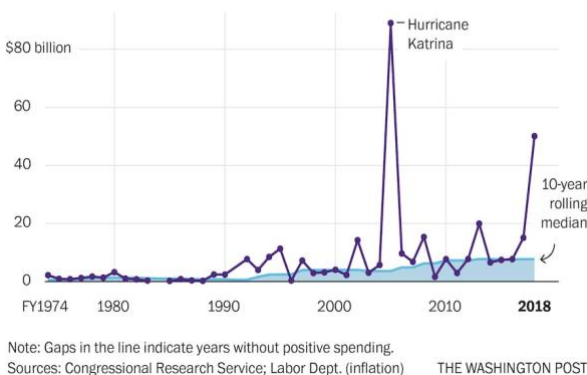
<sup>9</sup> <https://www.whitehouse.gov/omb/briefing-room/2022/04/04/quantifying-risks-to-the-federal-budget-from-climate-change/>

<sup>10</sup> <https://riskcenter.wharton.upenn.edu/lab-notes/federal-disaster-rebuilding-spending-look-numbers/>



**Disaster-relief appropriations**

Figures are adjusted for inflation and include only the Federal Disaster Relief Fund, which underestimates total federal spending on disaster relief



Disaster Relief Funds (DRFs) are pools of money the Federal Emergency Management Agency (FEMA) controls to allocate to states that are overwhelmed financially as a result of natural disasters. State governments already have their own budgets to address the aftermath of extreme weather events, but when more devastating natural disasters strike, state budgets often become exhausted, leaving states to look to Congress and federal agencies for additional assistance. The supplemental funding that FEMA receives for DRFs has only increased as time has gone on. William Painter, a specialist in emergency management and homeland security policy for the Congressional Research Service, explained that, “from the beginning of fiscal year 2020 through the end of fiscal 2021, FEMA [will have] obligated more from the DRF than in any previous two-year period.”<sup>11</sup> Recent natural disasters and crises are not helping to diminish spending. In the last fiscal quarter, NOAA’s National Centers for Environmental Information published a report that highlighted, “In 2022 (as of July 11), there have been 9 weather/climate disaster events with losses exceeding \$1 billion each to affect the United States. These events included 1 drought event and 8 severe storm events. Overall, these events resulted in the deaths of 8 people and had significant economic effects on the areas impacted.”<sup>12</sup>

The devastation from Hurricane Ian will only add to this alarmingly high number; as of October 7<sup>th</sup>, at least 119 people have died, making this the deadliest hurricane in Florida since 1935.<sup>13</sup> According to Bloomberg, Hurricane Ian could cost private U.S. insurers up to \$63 billion in claims, resulting in the largest storm-related losses in Florida’s history.<sup>14</sup> Additional appropriation measures are not helping with the debt either. Appropriations packages, while necessary, only continue to add to the debt that American taxpayers face. The 2021 Continuing Resolution allocated \$28.6 billion in emergency disaster funding to address previous natural disasters, including Hurricanes Ida, Delta, Zeta, and Laura, wildfires, severe droughts and winter storms, and other natural and major disasters declared in 2021 and prior years. The chart below highlights relatively recent spending allocated to post-disaster funding.

<sup>11</sup> <https://www.pewtrusts.org/en/research-and-analysis/articles/2021/08/27/how-government-can-address-growing-disaster-costs>

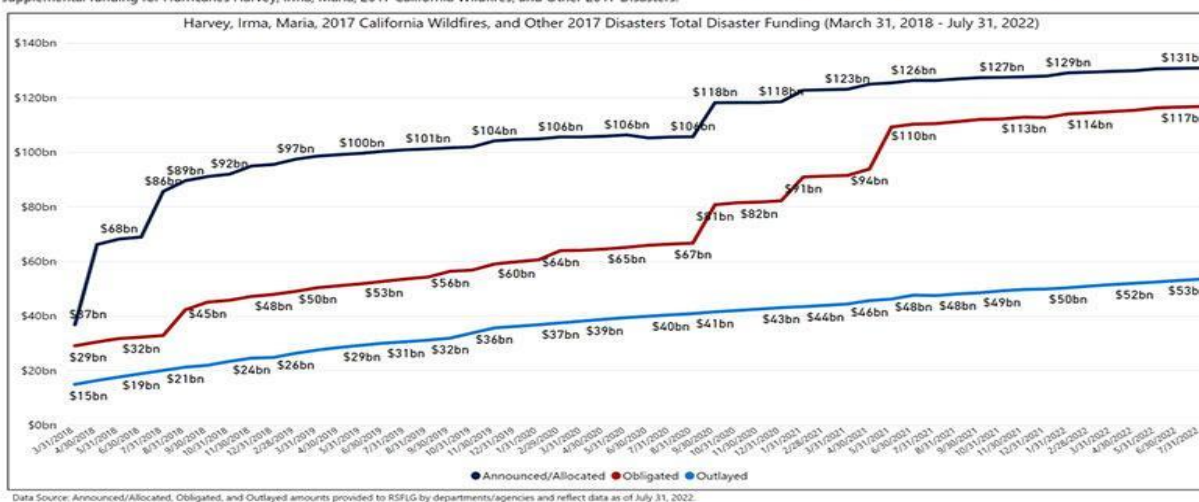
<sup>12</sup> <https://www.ncei.noaa.gov/access/billions/>

<sup>13</sup> <https://www.nytimes.com/2022/10/07/us/hurricane-ian-victims-drowned.html>

<sup>14</sup> <https://www.bloomberg.com/news/articles/2022-09-30/hurricane-ian-to-cost-us-insurers-63-billion-risk-modeler-says>

**Disaster Funding Progress: Harvey, Irma, Maria, 2017 California Wildfires, and Other 2017 Disasters**

Since September 2017, 20 federal agencies have collectively announced/allocated approximately **\$130.8 billion**, obligated **\$116.7 billion**, and outlayed **\$53.4 billion**, including FEMA and SBA non-supplemental funding for Hurricanes Harvey, Irma, Maria, 2017 California Wildfires, and Other 2017 Disasters.



Without question, post-disaster funding is necessary to assist American communities that have felt the devastating effects of natural disasters – that will realistically and likely always be the case. However, legislators must consider the economics of the broader situation and prioritize pre-disaster mitigation and resiliency efforts that will save American taxpayers billions of dollars and reduce the amount of money being allocated for post-disaster spending.

*Defense Spending*

Extreme weather poses risks to taxpayers beyond what may be thought of as typical disaster recovery spending, including physical risk to Department of Defense (DOD) assets, overall military readiness, and the safety of those in uniform. As identified by the DOD, climate change is both a “threat and a threat multiplier.”<sup>15</sup> In April 2021, the DOD found that its military bases faced a myriad of climate threats, such as wildfires from increased drought, as well as flooding for bases in coastal areas. This trend is consistent for bases throughout the world.<sup>16</sup>

The DOD has one of the largest real estate portfolios within the federal government, with a 2019 replacement value totaling approximately \$1.3 trillion.<sup>17</sup> Outdated mitigation and resiliency strategies could force the federal government to spend billions of dollars reacting to disasters. Without meaningful change, this number is only expected to increase, adding extra stress to taxpayers. Further, recent studies from CoreLogic have found that a significant number of military housing stock in Mississippi and North Carolina face dangerous flood, hail, and tornado risk.<sup>18</sup> These facilities and the families who live in them are more vulnerable to climate change

<sup>15</sup> <https://media.defense.gov/2021/Apr/20/2002624613/-1/-1/1/DOD-INSTALLATION-EXPOSURE-TO-CLIMATE-CHANGE-AT-HOME-ANDABROAD.PDF>

<sup>16</sup> Id.

<sup>17</sup> <https://www.gao.gov/assets/gao-20-615.pdf>

<sup>18</sup> [https://mcusercontent.com/65ee38c99561aeba4a1f82919/files/b8aaa756-cba4-0f31-11e4d14d7d201989/20201120\\_PPT\\_CompositeRiskScores\\_MS\\_NC.pdf](https://mcusercontent.com/65ee38c99561aeba4a1f82919/files/b8aaa756-cba4-0f31-11e4d14d7d201989/20201120_PPT_CompositeRiskScores_MS_NC.pdf)

and other health issues that plague older buildings, such as mold and pests. The tenant bill of rights established in the FY2020 National Defense Authorization Act (NDAA) calls for military families to have the right to housing that meets environmental standards.<sup>19</sup>

Climate adaptation and resiliency is the future of an effective military. Improving the durability of American military bases before storms strike will help to uphold the U.S.'s position as the world's leading global military power.

### *Infrastructure Spending*

The nexus between infrastructure spending and disaster preparedness should not be overlooked. American infrastructure, including roads, bridges, and stormwater systems, was designed without regard for a changing climate and is ill-equipped to withstand natural catastrophic risks. Roads and bridges are buckling under higher temperatures, increased snowfall, wildfires, and disastrous flooding. Stormwater management systems are overwhelmed by natural catastrophes. As such, it is imperative that Congress, the Executive Branch, and stakeholders across the nation unite behind fiscally-sound, environmentally responsible approaches to natural disasters and infrastructure policy.

Protecting existing natural systems and investing in natural infrastructure like restoration of wetlands, mangroves, and dunes provide an effective solution to guarding against flooding and erosion. NOAA estimates that U.S. coastal wetlands alone provide \$23.2 billion in storm protection each year.<sup>20</sup> During Hurricane Sandy, for example, wetlands reduced damages by more than 22 percent in half of the areas directly affected by the storm (by as much as 30 percent in some states) and were estimated to save \$625 million in direct flood damage.<sup>21</sup> In addition to protecting communities, these natural features provide important wildlife habitat and will assist in creating outdoor recreation opportunities and restoring tourism activity.

Other examples of taxpayer savings and economic growth resulting from nature-based solutions include:

- An oyster reef restoration project in Mobile Bay, Alabama that is projected to reduce wave height by 51 to 90 percent and reduce wave energy at the shore by 76 to 99 percent, all while adding \$8.4 million to the local economy;<sup>22</sup>
- A wetland and shoreline restoration project in Muskegon Lake, Michigan that is estimated to stimulate the local economy by more than \$57 million including, \$12 million in increased property values (equating to \$600,000 in annual tax revenues) and a \$1 million annual increase in recreational spending;<sup>23</sup>
- A 200-acre reclaimed wetland – an abandoned golf course – in Clear Lake, Texas that acted as a sponge during Hurricane Harvey, protecting residents and their homes from potentially deadly flooding;<sup>24</sup> and

<sup>19</sup> [https://media.defense.gov/2021/Nov/16/2002893873/-1/1/MANAGEMENT%20CHALLENGES\\_FY22.PDF](https://media.defense.gov/2021/Nov/16/2002893873/-1/1/MANAGEMENT%20CHALLENGES_FY22.PDF)<sup>8</sup>  
<https://www.nwf.org/dodadaptationguide>

<sup>20</sup> <https://coast.noaa.gov/states/fast-facts/natural-infrastructure.html>

<sup>21</sup> <https://news.ucsc.edu/2017/08/coastal-wetlands.html>

<sup>22</sup> <https://coast.noaa.gov/digitalcoast/training/gi-database.html>

<sup>23</sup> <https://coast.noaa.gov/states/stories/restoration-dollars-bring-six-times-return-on-investment.html>

<sup>24</sup> <https://coast.noaa.gov/states/stories/urban-golf-course-turned-wetland-cuts-hurricane-harvey-flood-impacts.html>

- The installation of 28 rain gardens in Aurora, Illinois that have provided a buffer for the city’s storm sewer system and saved the city an estimated \$1.8 million.<sup>25</sup>

### *Taxpayer Protection*

As the costs of disasters continue to rise, it becomes more evident that a post-disaster approach to natural catastrophes is simply not sustainable or friendly to American taxpayers. Research shows that every dollar invested in pre-disaster mitigation saves up to \$13 in federal spending.<sup>26</sup> The federal government cannot continue to allocate its risk reduction funds after damage has been inflicted when pre-disaster mitigation and resiliency efforts have repeatedly proven to be more effective at reducing risk and saving millions in taxpayer money. Investments in resiliency and pre-disaster mitigation are the only strategies that can simultaneously safeguard taxpayer dollars while offering better protection to both communities and, when done correctly, the environment. This is particularly important in a time of high federal spending.

### **Conservation, Recreation, and the Evolving Climate**

The damage emerging from extreme weather takes a toll on conservation efforts. The continued maintenance of wetlands and forests have been heavily impacted by devastating weather events. In addition, the recreation industry has been heavily hit by natural disasters across the nation. As a result, various conservation groups have started campaigns to highlight the damages that recent extreme weather events have had on their respective industries.

Ducks Unlimited (DU), a major wetland conservation group, has been publishing content related to climate change and its effects on waterfowl breeding grounds. As the group noted on its website, “Most major waterfowl habitats in North America face potentially significant, detrimental impacts from the effects of climate change. Historic waterfowl breeding grounds such as the Prairie Pothole Region and Western Boreal Forest could experience significant landscape changes and face more variable weather and precipitation, which could result in diminished waterfowl breeding populations in these areas over the long term.”<sup>27</sup> DU also highlighted the impacts of extreme weather in California, stating, “The Central Valley of California, a key wintering area for pintails and other Pacific Flyway waterfowl, could see changes in water availability that will also impact waterfowl habitat abundance.”<sup>28</sup> DU and other conservation groups have dedicated more resources to studying and educating their respective memberships on the impacts of climate change on conservation efforts.

The Congressional Sportsmen’s Foundation (CSF), a nonprofit organization whose mission is to work with legislators to protect and advance hunting, angling, and recreational shooting, has also begun to explore climate change and its impacts on a variety of recreational industries. The CSF has highlighted a growing number of scientific studies that have emphasized the vital need to address the impacts of climate change regarding U.S. wildlife and fish resources.<sup>29</sup> In its

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<sup>25</sup> <https://coast.noaa.gov/digitalcoast/training/gi-database.html>

<sup>26</sup> [http://2021.nibs.org/files/pdfs/ms\\_v4\\_overview.pdf](http://2021.nibs.org/files/pdfs/ms_v4_overview.pdf)

<sup>27</sup> <https://www.ducks.org/conservation/public-policy/climate-change-and-waterfowl>

<sup>28</sup> *Id.*

<sup>29</sup> <https://congressionalsportsmen.org/the-media-room/news/the-outdoorsmens-guide-to-climate-change-now-available-online>



*Outdoorsman’s Guide to Climate Change*”, the CSF dedicates a section to highlighting ways in which the group has elevated policy proposals catered to addressing climate change, while also emphasizing the important position the outdoor sporting community plays in supporting conservation efforts.<sup>30</sup>

## **Policy Solutions**

Simply put, the most effective way to protect communities and more responsibly use taxpayer funds is to invest in and incentivize pre-disaster mitigation. Pre-disaster mitigation and resiliency solutions are not new to Congress. Members on both sides of the aisle have introduced legislation that supports pre-disaster migration and resiliency measures. House Minority leader Kevin McCarthy (R-CA), in the “*Commitment to America*” plan announced Fall 2022, dedicated an entire section to pre-disaster mitigation solutions and resiliency measures. The plan introduces the Energy, Climate, and Conservation Task Force; this task force, led by Rep. Garret Graves (R-LA), seeks to promote the use of pre-disaster mitigation and resiliency measures across American communities. The pre-disaster mitigation and resiliency section highlights, “resiliency encompasses everything from providing water in the West to protecting our coastline to delivering electricity to our homes and businesses. The House Republican report recognizes that investments in resiliency save taxpayer funds and that mitigation efforts can decrease disaster spending. Mitigation is critical, given that disaster costs have increased significantly over the years”<sup>31</sup>. House Republicans have recognized the need to address the many issues arising from the uptick in natural disasters; these solutions will greatly reduce the financial burden felt by American taxpayers.

Pre-disaster mitigation efforts need to meet the specific needs in the regions the efforts serve. Unfortunately, some communities are more susceptible to the effects of climate change than others, and often these communities are low-income and communities of color. These are the same communities that have been historically excluded from previous infrastructure and natural disaster assistance. Though grants to financially support pre-disaster mitigation are available, many vulnerable communities do not have the capacity to apply for grants to start the projects. Yet, devastation resulting from natural catastrophes, and the post-disaster recovery efforts paid for by taxpayers, do not discriminate. New and improved investments are needed to work with communities to provide them with the unique protections they need.

Climate resiliency is just as important as pre-disaster mitigation. After a disaster, communities must recover with climate resiliency in mind by not developing in climate sensitive areas, using the most up-to-date building codes, and relying on climate science to guide decision-making. Following the science will allow community leaders to make the better-informed decisions that will yield improved outcomes.

In the National Institute of Building Sciences’ (NIBS) 2019 report titled, *National Hazard Mitigation Saves*, researchers conducted a series of cost-benefit analyses on the different ways that pre-disaster mitigation can save money and lives in a community and found that adopting International Residential Codes (IRCs) and International Building Codes (IBCs) contributed to

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<sup>30</sup> <https://www.csclimateguide.org>

<sup>31</sup> <https://republicanleader.house.gov/wp-content/uploads/2022/08/Build-Resilient-Communities-8-9-2022-15.pdf>

economic growth in the community by creating new jobs in the construction sector.<sup>32</sup> Overall, Congress should also be attuned to proposals that emphasize smarter and safer building. While that may involve difficult decision-making on the part of lawmakers, ideas that promote resilient building and remove homeowners and renters from harm's way should be given serious consideration. Such proposals include steps to restrict new construction in areas known to be prone to catastrophic flooding.<sup>33</sup> The current system creates distorted incentives for public and private development of areas that are almost impossible to fully flood-proof.<sup>34</sup> Congress should also consider proposals that would require federal agencies to account for future flood risk and incorporate resiliency and mitigation measures when evaluating federally funded projects.<sup>35</sup>

Given that flooding is the costliest and most frequent disaster, lawmakers should also move to make meaningful reforms to FEMA's National Flood Insurance Program (NFIP). The NFIP remains the only federally subsidized program that incentivizes people to live in harm's way. The growing strength of floods and hurricanes is increasingly straining the financial health of the NFIP. Over the past twenty years, the program has been hit by major losses from a series of powerful storms, including Hurricane Katrina (\$16.3 billion), Hurricane Harvey (\$8.9 billion), and Superstorm Sandy (\$8.8 billion). Immediate reports in the aftermath of Hurricane Ian show that \$85 billion of NFIP coverage is exposed to losses along Florida's west coast, potentially setting the NFIP up for further financial losses.<sup>36</sup> Unfortunately, the situation has resulted in the NFIP paying out claims at an unsustainable rate. As of May 2022, the NFIP was indebted to Treasury to the tune of \$20.5 billion dollars (excluding the forgiveness of \$16 billion in 2017).<sup>37</sup> The Continuing Resolution passed by Congress in September 2022 marked the twenty-second consecutive short-term reauthorization of the NFIP with no reforms. It is imperative that Congress recognizes the physical and economic harm embedded in the program. Further, policies that prioritize pre-disaster mitigation (including nature-based mitigation), ensure flood premiums reflect accurate levels of risk, expand the role of private insurance, and modernize and improve floodplain mapping should be seriously contemplated and pursued.

Lastly, but equally important, the solutions that will exceptionally accelerate the physical and financial recovery process from natural disasters will be found through private sector innovation and the advent of new insurance models to adjust to climate risk. Insurance companies play a dynamic role in the financial system. Their sensitivity to climate change has incentivized this industry to play a major role in creating "climate resilient economies."<sup>38</sup> If the goal is to reduce the financial impact of natural disasters on federal balance sheets, then the federal government should look to leverage private sector insurance companies as well as their unique ability to safely spread risks and absorb more costs. Mitigation allows money to flow away from insurance claims and administrative fees and instead is put towards recovery efforts.<sup>39</sup> Further, with the rise

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<sup>32</sup> <https://www.nibs.org/projects/natural-hazard-mitigation-saves-2019-report>

<sup>33</sup> <https://www.congress.gov/bill/117th-congress/house-bill/2632/text?r=9&s=2>

<sup>34</sup> [https://www.taxpayer.net/wp-content/uploads/ported/user\\_uploads/file/Wastebasket/TCS\\_katrinascostlywake.pdf](https://www.taxpayer.net/wp-content/uploads/ported/user_uploads/file/Wastebasket/TCS_katrinascostlywake.pdf)

<sup>35</sup> <https://www.congress.gov/bill/117th-congress/house-bill/481/text>

<sup>36</sup> <https://www.insidepandc.com/article/2aoybci8h4z76fusajvgg/floridians/analysis-85bn-of-nfip-coverage-exposed-to-ian-losses-on-floridas-west-coast>

<sup>37</sup> [https://www.fema.gov/sites/default/files/documents/fema\\_flood-insurance-reform-proposal\\_5242022.pdf](https://www.fema.gov/sites/default/files/documents/fema_flood-insurance-reform-proposal_5242022.pdf)

<sup>38</sup> <https://www.natlawreview.com/article/insurance-industry-expected-to-play-major-role-addressing-climate-change-following>

<sup>39</sup> [https://www.nibs.org/files/pdfs/NIBS\\_MMC\\_MitigationSaves\\_2019.pdf](https://www.nibs.org/files/pdfs/NIBS_MMC_MitigationSaves_2019.pdf)

of new uniformed disclosures and domestic and international guidance,<sup>40</sup> insurance companies continue to be innovative stakeholders as a part of the fight against climate change.

It is important to realize that facilitating and strengthening public-private partnerships will give programs increased access to better technology and more capital to increase efficiency to better serve the individuals they intend to help, and to reduce taxpayer exposure. The private sector, particularly the insurance and reinsurance industries, is eager to take on additional risk associated with natural disasters. Certain federal programs and agencies, including FEMA, the Federal Housing Finance Agency, and the Export-Import Bank, already employ risk transfer strategies, proving they can be successful. For example, FEMA's losses stemming from Hurricane Harvey exceeded the \$10 billion threshold, triggering a reinsurance payment of more than \$1 billion.<sup>41</sup> More can be done in the climate space, and reinsurance remains key to creating a sustainable future that will help drive down financial loss.

By leveraging private financing, insurance, capital markets solutions, and reinsurance availability, policymakers can shift some of the financial burdens associated with climate change from the government's balance sheet to willing private sector participants to improve the implementation of the entire program.

In the 117<sup>th</sup> Congress, SmarterSafer endorsed various legislative initiatives, some of which are highlighted below, designed to enhance resiliency and pre-disaster mitigation. The coalition encourages Congress to introduce and advance similar legislation in the 118<sup>th</sup> Congress.

- [H.R. 2760](#) and [S.1282](#), *the Built to Last Act*, to improve infrastructure resiliency by ensuring that standards-developing organizations that issue building codes have access to forward-looking meteorological information, including data on wildfires and other environmental trends, from NIST and NOAA.
- [H.R. 1797](#) and [S.2153](#), *the Repeatedly Flooded Communities Preparation Act*, to require repeatedly flooded communities to assess continuing risks and develop and implement a plan for flood mitigation.
- [H.R. 4699](#), to amend the National Flood Insurance Act of 1968 to allow for the consideration of private flood insurance for the purposes of applying continuous coverage requirements, and for other purposes.
- [H.R. 2632](#), *the Build for Future Disasters Act*, to end NFIP subsidies for newly constructed properties in flood-prone areas
- [S. 3875](#) / [H.R. 7242](#), *the Community Disaster Resilience Zones Act of 2022*, To require the President to develop and maintain products that show the risk of natural hazards across the United States, and for other purposes.

## Conclusion

Fortifying an economy that can withstand increasingly severe weather patterns and events is a project that will exist into perpetuity. When disasters hit, entire communities and livelihoods are

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<sup>40</sup> <https://www.natlawreview.com/article/insurance-industry-expected-to-play-major-role-addressing-climate-change-following>

<sup>41</sup> <https://crsreports.congress.gov/product/pdf/IN/IN10965>

destroyed, generations worth of work are wiped away by a single event, and critical infrastructure such as houses, schools, hospitals, and roads are destroyed. Though this paper focuses primarily on the financial aspects of our changing climate, we cannot ignore other devastating impacts that natural disasters have on communities. It is impossible to quantify the value of humanity and the emotional connections within communities that are destroyed by natural disasters. Congress must be proactive in their efforts to combat climate change and natural disasters by investing in and incentivizing pre-disaster mitigation, expediting aid in an equitable manner, and promoting public-private partnerships to offset risk to the taxpayer. These efforts are the required solutions needed to begin the formation of communities and economies of the future.