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Subject: FYI: 2013 Saw Nine More Extreme Weather Events with Huge Damage, Fatalities

<http://www.americanprogress.org/issues/green/news/2014/03/27/86532/2013-extreme-weather-extreme-damage/>

2013: Extreme Weather, Extreme Damage

So far, the 2010s have been the decade of severe weather in the United States. In the first four years of the decade, there was an average of 72 [presidential major disaster declarations](#) per year due to floods, storms, and wildfires—a nearly 30 percent increase over the previous decade's average. Of the extreme weather events in 2011 and 2012, 25 each caused at least \$1 billion worth of economic damage. [CAP determined](#) that the combined price tag for these events was \$188 billion and, more devastatingly, they resulted in 1,107 reported fatalities.

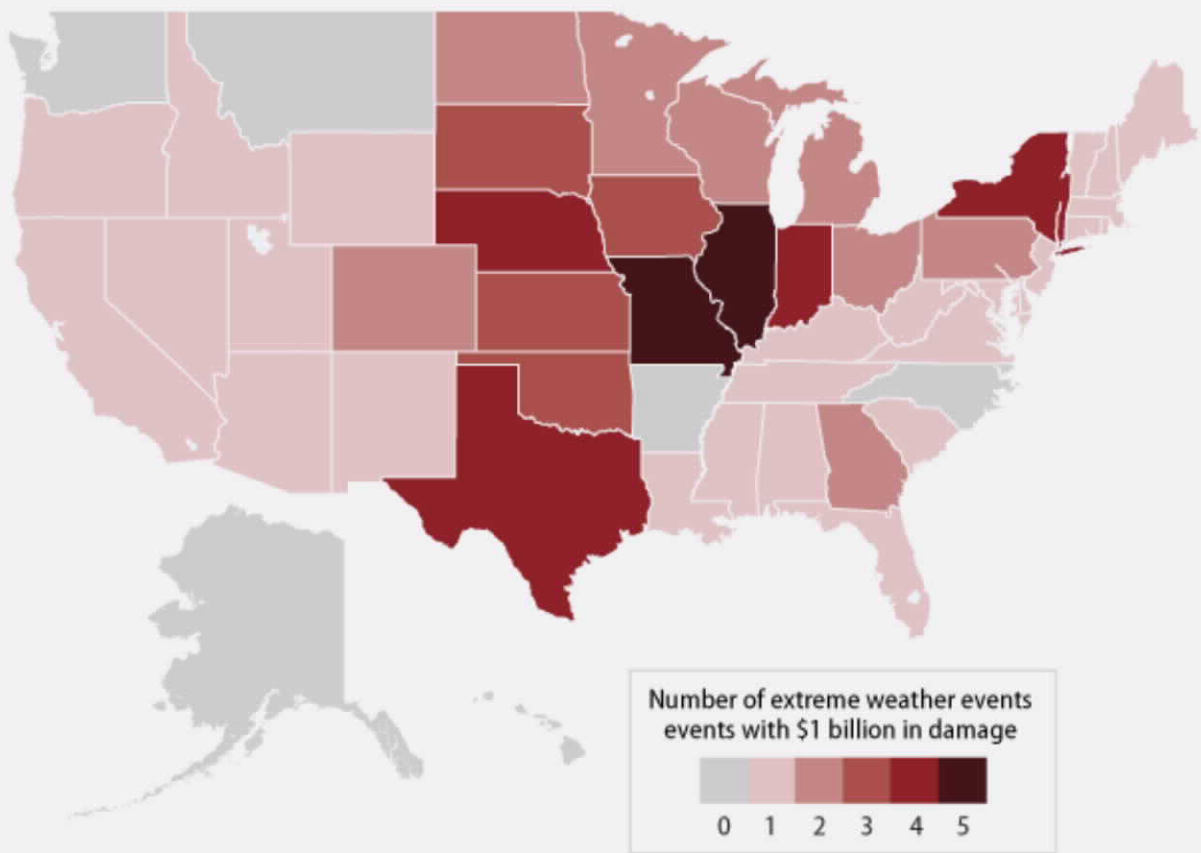
This past year also had many severely harmful extreme weather events. A CAP analysis of federal and insurance industry disaster data determined that in 2013 there were:

- 60 [presidential major disaster declarations](#) from extreme weather events linked to climate change
- Nine extreme weather [events](#) that [each](#) inflicted at least \$1 billion in damage
- [114 fatalities](#) and [\\$20 billion](#) in economic losses in 44 states caused by just these nine events

This brings the total extreme weather cost for the 34 most severe events to 1,221 fatalities and \$208 billion in damage between 2011 and 2013.

FIGURE 1

The most destructive extreme weather events of 2013



Extreme weather event	Dates	Fatalities	Estimated economic loss (in billions)	States
Plains, Midwest, and Northeast winter storms*	2/24-2/27	3	\$1.0	CT, DE, IA, IL, IN, MA, MD, ME, MI, MN, MO, ND, NE, NH, NJ, NY, OK, PA, RI, SD, TX, VT, WI
Western drought/heatwave	3/1-9/30	53	\$3.5	AZ, CA, CO, ID, KS, NE, NM, NV, OK, OR, SD, TX, UT, WY
Southeast severe storms	3/18-3/20	1	\$2.5	AL, FL, GA, LA, MS, SC, TN
Midwest and Plains severe storms*	4/7-4/11	1	\$1.8	IN, KS, MO, NE
Midwest, Plains, and Northeast severe storms	5/18-5/22	27	\$3.8	GA, IA, IL, KS, MO, NY, OK, TX
Midwest, Plains, and Northeast severe storms	5/27-5/31	10	\$2.3	IL, IN, KS, MO, NY, OK, TX
Plains and Midwest severe storms	8/5-8/7	2	\$1.3	IA, IL, IN, KS, MI, MN, MO, ND, NE, OH, SD, WI
Colorado storm and flood	9/9-9/16	9	\$2.0	CO
Midwest and Ohio Valley severe storms	11/17-11/18	8	\$1.6	IL, IN, KY, MD, MI, MO, NY, OH, PA, VA, WV
Total		114	\$19.8	44

The nine most damaging events included the severe drought in [Colorado](#), which was followed by torrential rains there that sparked widespread flooding in September 2013. The floods left nine people dead and more than \$2 billion in property damage in their wake. According to [Climate Central](#), the intensity of the Colorado flooding is linked to climate change:

The amount by which this event has exceeded past events suggests that manmade warming may have played some role by making the event worse than it would have otherwise been. ... Colorado sits right along the dividing line between the areas where average annual precipitation is expected to increase, and the region that is expected to become drier as a result of climate change. That may translate into more frequent, sharp swings between drought and flood, as has recently been the case. Last year ... was Colorado's second-driest on record, with the warmest spring and warmest summer on record, leading to an intense drought.

Similar to the Colorado floods, many of 2013's other most destructive extreme weather events were symptomatic of what scientists predict will occur with greater frequency or severity as climate change accelerates. The U.N. [Intergovernmental Panel on Climate Change](#), or IPCC, recently determined that "Climate change ... can lead to changes in the likelihood of the occurrence or strength of extreme weather and climate events such as extreme precipitation events or warm spells."

Other respected scientific institutions reached the same conclusions. The British [Royal Society](#) and the U.S. National Academy of Sciences, for example, produced a joint report confirming humans' significant contribution to climate change. Their report, "[Climate Change: Evidence and Causes](#)," warned that as the Earth's lower atmosphere becomes warmer and more moist due to human-emitted carbon and other climate pollutants, it will increase the fuel for more severe weather events. The report determined that "Consistent with theoretical expectations, heavy rainfall and snowfall events (which increase the risk of flooding) and heat waves are generally becoming more frequent."

The heat waves and drought linked to climate change will also fuel fiercer wildfires, with a brutal fire season expected in 2014. [The Washington Post](#) recently reported that:

Global warming is accelerating climate change in the West, resulting in winters with less precipitation and a drier landscape.

'We've had record fires in 10 states in the last decade, most of them in the West,' said Agriculture Department Undersecretary Harris Sherman.

It once was rare to see 5 million cumulative acres burn in a year. In recent seasons, the amount of acreage burned in wildfires has been twice that.

The historic drought currently plaguing California has slashed its farm economy by \$5 billion thus far, according to [USA Today](#). Meanwhile, heavy rains in Los Angeles County led to huge, destructive mudslides because, as reported by [CNN](#), “the hills can’t hold water because so much vegetation was destroyed in wildfires and drought.”

President Barack Obama’s [Climate Action Plan](#) includes policies to “prepare the United States for the impacts of climate change” to reduce damage and fatalities from extreme weather events. This includes providing communities with technical assistance, information, and resources to help strengthen their infrastructure to better withstand storms, floods, drought, heat waves, and wildfires.

Examples of resilience efforts include [New York City’s](#) investments in green infrastructure. The city plans to restore the wetlands that naturally buffer storm surges and rising flood waters. New York also adopted new zoning regulations to elevate utility equipment above potential flood waters.

To boost these efforts, President Obama also proposed the creation and financing of a [Climate Resilience Fund](#) as part of his [fiscal year 2015 budget](#). This fund would:

- Invest in research on the impacts of climate change and how we can better prepare our communities for them
- Help communities plan and prepare for these threats and encourage adoption of local measures to reduce future risk
- Fund breakthrough technologies and more resilient infrastructure that will make communities better prepared for the changing climate

This resilience fund would save the federal government money because every [\\$1 investment in resilience](#) reduces disaster recovery costs by \$4. [CAP](#) proposed a similar resilience fund idea in December 2012.

The [Climate Action Plan](#) includes a presidential directive to federal agencies to update their programs to better support local preparedness for the effects of climate change. The president also established a [State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience](#), which is devising recommendations for the Obama administration on how to better support local climate resilience efforts.

As [CAP recommended](#) earlier this year, the task force must work to ensure that future investment by the U.S. [Departments of Transportation](#) and [Housing and Urban Development](#), the [Environmental Protection Agency](#), the [Army Corps of Engineers](#), and other [agencies](#) only fund infrastructure projects that can withstand more extreme heat, drought, floods, and storms.

Local governments are organizing to boost their resilience to extreme weather events. More than [160 mayors and local officials](#) across the nation joined the [Resilient Communities for America](#) campaign to mobilize local officials around resilience efforts. These mayors and officials [made a commitment](#) to pursue the “paths to resilience” by addressing climate preparedness, energy security, infrastructure renewal, and economic prosperity.

Climate-related extreme weather events are the new normal. During the past three years, we suffered from 34 events that each led to at least \$1 billion in damage. These disasters were responsible for 1,221 fatalities and \$208 billion in economic losses. The [California drought](#) will add at least \$5 billion to that total.

As extreme weather events become more pronounced and frequent, we must act to ensure the safety of our communities against storms, floods, drought, wildfires, and heat waves. The billions of dollars in damage from these climate-charged events are essentially an [unfunded mandate](#) on the communities that must make investments to prepare for more frequent and ferocious weather. It is essential that Congress fund the \$1 billion Climate Resilience Fund to help our cities prepare for a future of destructive weather.

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