

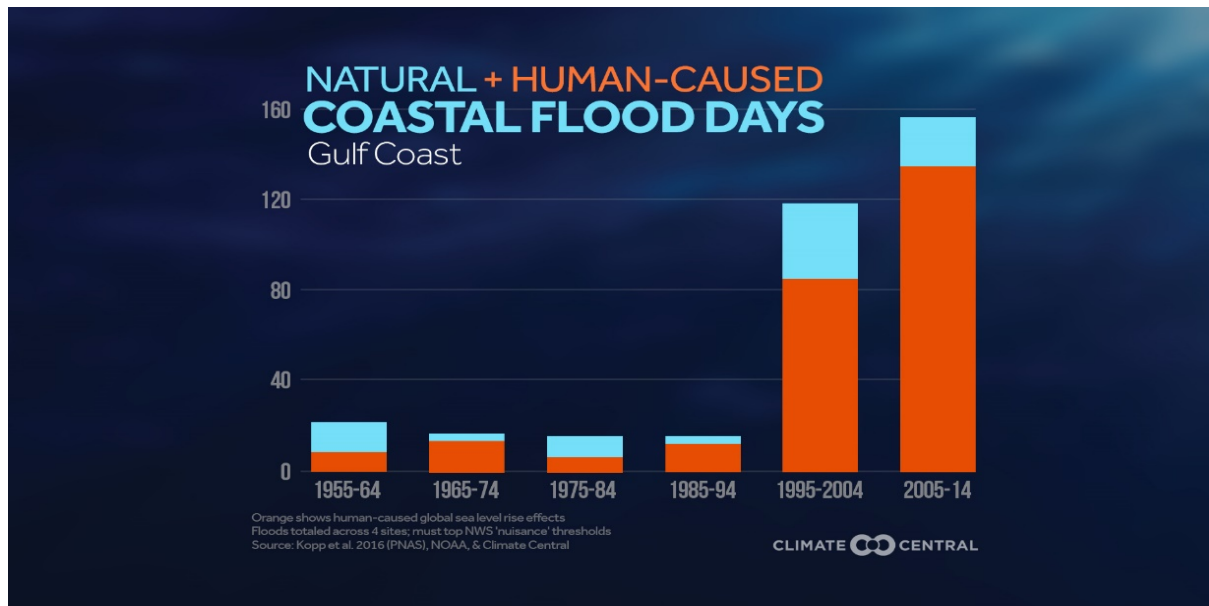
Natural & Human-caused Coastal Flood Days in the U.S.

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By Climate Central

Since 1950, human-caused global sea level rise has tipped the balance to account for two-thirds of coastal flood days in the U.S., according to [our latest sea level rise analysis](#). These results show that human-caused sea level rise is not just a future problem, it is driving most coastal flooding in the U.S. today.

Experts suggest it is unwise to use past storm experience to predict future risk. For the Gulf Coast:



Source: <http://statesatrisk.org/florida/coastal-flooding>

Sea level rise is raising the launch pad for coastal storms and high tides. In many places, only a few vertical inches separate what would be today called a once-in-a-century flood, from what would be called a once-in-a-decade flood. Rising seas will thus be experienced through ever-more frequent occurrence of extreme high coastal water levels and floods, long before anyone notices the average change. And it's these floods that can hurt the most. For example, when the Mississippi and Louisiana coasts were devastated by Hurricane Katrina in 2005, by far the greatest damage came from the storm surge, not the wind or rain.

In considering the dangers from sea level rise, it's crucial to take all of these factors — global rise, local rise, terrain, development, geology, drainage, storm surges, high tides, and more — into account.

ATTACHMENT A Literature on Insurance Trends and Risk Considerations

Unlike the past history of floods, the current trends indicate that out of the 25 most vulnerable cities, 20 of them are in Florida:

Cities Most Vulnerable to Coastal Flooding Today

Top 25 cities and their populations at risk (thousands) within FEMA's 100-year coastal floodplain

1.	New York	245	14.	Lauderhill, Fla.	66
2.	Miami	126	15.	Charleston, S.C.	64
3.	Pembroke Pines, Fla.	116	16.	Cape Coral, Fla.	59
4.	Coral Springs, Fla.	115	17.	Tamarac, Fla.	58
5.	Miramar, Fla.	93	18.	Margate, Fla.	50
6.	St. Petersburg, Fla.	88	19.	Tampa, Fla.	50
7.	Davie, Fla.	87	20.	Fountainebleau, Fla.	48
8.	Fort Lauderdale, Fla.	85	21.	Miami Gardens, Fla.	44
9.	Miami Beach, Fla.	85	22.	Country Club, Fla.	43
10.	Hialeah, Fla.	76	23.	Atlantic City, N.J.	37
11.	Sunrise, Fla.	74	24.	North Lauderdale, Fla.	37
12.	Pompano Beach, Fla.	73	25.	Kendale Lakes, Fla.	37
13.	Hollywood, Fla.	69			

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Source: <http://statesatrisk.org/florida/coastal-flooding>

“Nuisance Flooding” is a much higher concern. The literature suggests that today’s flood risk is not just about “The Big One”.....

“Just as sea levels have been rising, so too has the frequency of coastal floods, in particular recurrent minor or “nuisance” floods, often tidal in nature. Nuisance floods do not cause major damage, but do cause material harm, inconvenience and economic drag. The link between sea level rise and increased nuisance floods, with local water level exceedance thresholds defined by the National Weather Service based on historically observed minor impacts, is straightforward and well established (Sweet and Park 2014; Ezer and Atkinson 2014; Moftakhari et al. 2015).