

U.S. Caribbean

Regional Climate Impacts

Puerto Rico, U.S. Virgin Islands

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ENVIRONMENTAL
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Fast Facts Series

Rising seas and stronger hurricanes threaten island communities



Extreme heat in the U.S. Caribbean has been intensifying since 1980.



More severe **drought**, worsened by climate change, is threatening food and water systems in the region.



Climate change contributes to **sea-level rise** in the U.S. Caribbean, which exacerbates the impacts of powerful tropical storms.



Excessive rain, stronger hurricanes, and higher sea levels are affecting **water quality** through the increased leaching of agricultural chemicals and wastewater from septic systems.

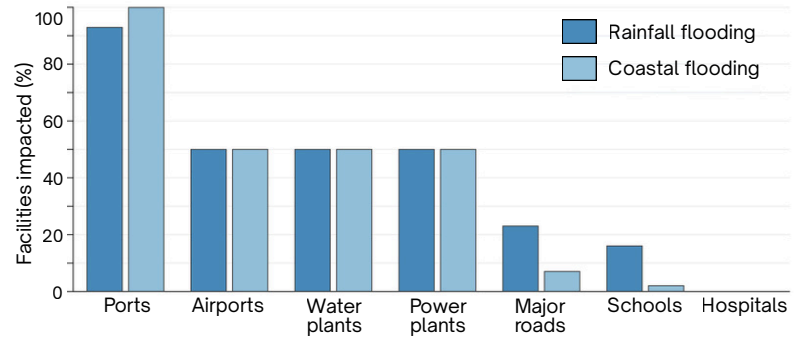


The number of intense **tropical cyclones** (Categories 4 and 5) is projected to increase as a result of climate change. Stronger hurricanes and rising sea levels severely damage critical infrastructure, with increasing damage projected in the future.

Hurricane-related damages and recovery costs are driving litigation

Cases related to hurricanes have raised issues about the adequacy of preparations, the role of companies in communicating the climate risks of their products, and how zoning codes apply to rebuilding efforts, among others. Given the substantial financial consequences of hurricanes, there are also disputes about insurance and recovery. Between 2010 and 2019, 98% of the Puerto Rico Crop Insurance Corporation's insurance payouts were for hurricane-related losses.

Critical Infrastructure at Risk of Flooding in the U.S. Virgin Islands



This figure shows the percentage of critical infrastructure currently located in flood zones in the U.S. Virgin Islands. Rainfall flooding is caused by rainstorms, and coastal flooding is caused by storm surges and waves. Many similar facilities are at risk in Puerto Rico. Figure adapted from the Fifth U.S. National Climate Assessment.

CASE SPOTLIGHT: HURRICANES

Municipality of Bayamón v. Exxon Mobil Corp. (D.P.R. 2025)

Summary: In 2022, 37 Puerto Rican municipalities filed suit against major fossil fuel companies, alleging claims under Puerto Rico and federal law, including the federal Racketeer Influenced and Corrupt Organizations (RICO) Act. The municipalities alleged that the defendants' **misrepresentation and concealment of the climate risks associated with their products played a role in intensifying the damage from the 2017 hurricane season.** The district court dismissed the case, finding the claims time-barred. The municipalities have appealed.

Science: The plaintiffs' complaint relied on climate science to attempt to connect climate change to local impacts. It referenced studies linking human-caused warming to higher sea surface temperatures in the Atlantic Ocean, which are associated with **more intense hurricanes, heavier rainfall, and increased storm surge and flooding risks that affect coastal infrastructure.**



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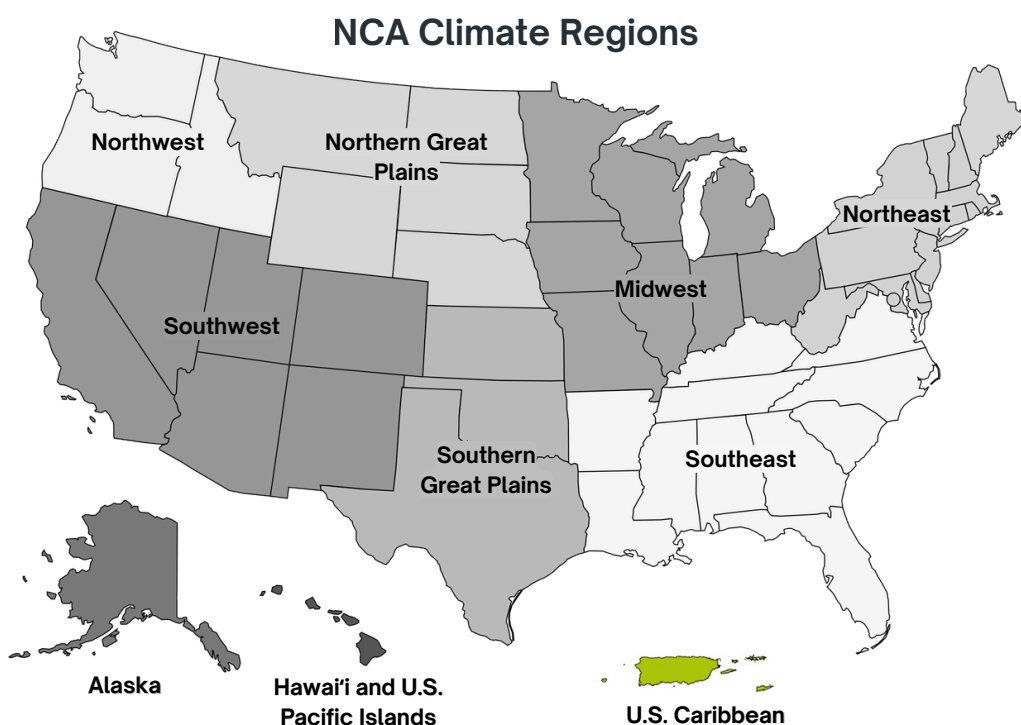
Providing judges with authoritative, objective, and trusted education on climate science and the law.

Climate change impacts all regions of the United States

The Fifth National Climate Assessment (NCA5) of 2023 divides the United States into ten regions to assess the current and future risks posed by climate change in each region. View fact sheets for other regions at cjp.eli.org and learn more about climate impacts at nca5.climate.us/regions.

Primary impacts from climate change vary regionally, typically affecting:

- Heat
- Sea-level rise and flooding
- Precipitation patterns
- Hurricanes and tropical storms
- Wildfires
- Air quality
- Sea ice and glacier melt



SO Why should judges care?

The effects of climate change are reshaping society and, with it, many aspects of the law. There are thousands of cases in courts throughout the country raising issues related to climate change that cover an extremely wide variety of topics, including, for example, insurance, permitting, and land use. As the impacts of climate change accelerate, judges can expect more cases that will draw upon scientific and technical evidence about these impacts.

SOURCES

Pablo A. Méndez-Lazaro et al., *Chapter 23: US Caribbean in Fifth National Climate Assessment (2023)*, <https://nca5.climate.us/>.

Municipality of Bayamón v. Exxon Mobil Corp., No. 22-1550 (D.P.R. Sept. 11, 2025).

