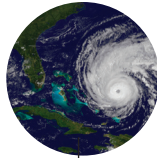


Supply Chain Climate Heat Map

Here are some of the climate hot spots that pose the biggest disruption threats to procurement and logistics operations. As climate change is an issue that impacts all corners of the globe, this is not an all-inclusive list.



Diminishing ice in the Arctic is enabling new routes and extending shipping seasons, and large, previously unreachable resources of oil and natural gas might be available for exploration. However, the resulting rise in sea levels is likely to threaten coastal cities. Melting ice can also release long-dormant pathogens, making the planet susceptible to a pandemic.



Seven hurricanes that each resulted in at least US\$1 billion in damages struck the U.S. Gulf and Atlantic coasts in 2020. Meteorologists at Colorado State University in Fort Collins, Colorado, forecast a 60-percent chance that this year's hurricane season will be just as or even more active.

In recent years, flooding and severe weather have devastated Midwest crops, while Canada's climate has become more hospitable to corn and other crops. Could continuing global warming move the agricultural sweet spot north of the border?



Drought-induced low water levels along the Rhine River, which winds 800 miles through the Netherlands, Germany and Switzerland, are threatening the accessibility of large barges. Disruptions delayed materials shipments from Germany, impacting that country's economy.



The Mediterranean region will be significantly drier in coming decades, according to researchers at Massachusetts Institute of Technology. The region, which accounts for significant portions of the world's wheat, tomatoes and olives, could potentially see 40 percent less precipitation during the winter rainy season, as well as drought conditions for six months of the year.



Wildfires ravaged California, Oregon and Washington during the fall. With California's rainy season starting in November — a month later than it used to, according to research by the American Geophysical Union — there are concerns this year's wildfire season could be extended.



Deforestation of the Amazon reached a 12-year high in 2020, and the climate impact extends far beyond supply chains. Scientists fear continuing exploitation will turn the Amazon from a net carbon-dioxide absorber to emitter by 2035.



In Africa, changing precipitation patterns are threatening agriculture, and rising ocean levels are projected to cut production by as much as 60 percent from the fisheries of Nigeria, Ghana and the Ivory Coast.



Last year, *Time* described Jacobabad, Pakistan, as "the hottest city on Earth." Not far away is India, where extreme heat could hamper work activities in one of the world's developing economies.