

Three Critically Rising Threats and Dynamic Risk

To properly prioritize physical threats, leaders need to know where to direct their attention. Our data shows that from 2021 through 2022, physical threats rose at an alarming rate across three key risk categories globally — infrastructure and technology, transportation accidents and extreme weather.

Threats by Percentage (2021 to 2022)

Risk Categories	U.S. Threats	Global Threats
Infrastructure and Technology	+807%	+688%
Transportation Accidents	+296%	+211%
Extreme Weather	+42%	+72%
Fire	+65%	+43%
Civil Unrest	-71%	+28%
National Security	-55%	+14%
Crime	-62%	-37%
Shootings	-64%	-48%
Public Health	-80%	-54%

When threats in these three risk categories materialize, business assets, employees and operations suffer. And it’s not only the immediate consequences that are problematic. Every physical threat has the potential to cascade throughout (and devastate) an organization’s operations, broader supply chain and market ecosystem.

In reality, the consequences of threats are often as unpredictable as the threat itself. These risks are dynamic, meaning the ultimate resulting harm (i.e., consequence) is different from the initially expected harm. This unexpected ripple effect can be one of the most challenging aspects of crisis preparation and management.

For example, a major nationwide retail chain experienced multiple arson attacks between 2020 and 2022. The fires immediately destroyed infrastructure and inventory, causing a two-week store closure — per store — and an estimated \$2 million in lost revenue. Some of the locations contained pharmacies, creating a secondary impact. What began as primarily property damage cascaded into a scenario in which people couldn’t get vital medicine. Millions in revenue were lost from the downtime, and pharmacy customers faced the difficult decision of sourcing medicine elsewhere.

We see similar situations in all three critically rising risk categories: Infrastructure and technology, transportation accidents and extreme weather. Each threat presents specific risks on its own. However, they’re often interconnected.

Extreme Weather

Extreme weather such as floods can impair operations, disrupt supply chains and destroy company property. It also impacts employees' wages, as employees may be unable to get to work. Logistical and distribution disruptions are other common consequences. From 2021 to 2022, extreme weather events were up 42 percent in the U.S. and 72 percent globally. In the U.S., winter storms and blizzards were up 216 percent, while tsunamis (221 percent), flash floods (52 percent) and severe storms (138 percent) all increased in frequency.

Extreme weather in particular can have a catastrophic ripple effect in a very short period of time. In 2022, Hurricane Ian damaged thousands of homes and businesses in Florida, North Carolina and South Carolina. Reports at the time [estimated that more than two million homes and businesses lost power](#). Many roadways were impassable, a causeway collapsed and, sadly, lives were lost.

Smaller storms can also have a significant impact, often leading to loss of productivity and business downtime. An isolated winter storm in Buffalo, N.Y., for example, [caused nearly a week-long driving ban in December 2022](#), keeping employees from going into work and halting deliveries.

Extreme Weather Event by Global Percentage

Type of Extreme Weather Event	U.S. 2021 to 2022	Global 2021 to 2022
Earthquake	+945%	+1964%
Winter Storm/Blizzard	+216%	+303%
Tsunami	+221%	+166%
Severe Storm	+138%	+86%
Flash Flood	+52%	+49%
Tornado	+11%	+36%
Landslide	-59%	+22%
Flood	+24%	+20%
Volcano	+22%	+6%
Cyclone	-41%	-14%
Avalanche	-41%	-27%
Wildfire	-58%	-40%

Infrastructure & Technology

From 2021 to 2022, infrastructure and technology failures (including power outages) soared 807 percent in the U.S. (688 percent globally). This is an issue that is expected to increase.

“An estimated 70 percent of the nation’s transmission lines are over 25 years old, and this aging infrastructure makes American communities, critical infrastructure and economic interests vulnerable,” according to the [White House](#).

807%

increase in
infrastructure
and technology
failures in the U.S.

From 2021 to 2022, infrastructure and technology failures, including power outages, rose for certain states such as Kansas (683 percent), Oklahoma (649 percent) and South Carolina (1716 percent). Similar issues continued in 2023 as heavy snow and strong winds caused [more than 100,000 residents and businesses](#) to lose power for days across several other states.

Infrastructure and technology failures are heightened as extreme weather increases. This means the dynamic risk from a blizzard now has a greater chance of extending beyond road closures into lengthy power outages. The impact to both communities and critical operations, not to mention nearby businesses within the area, is significant.

In addition to storm-induced infrastructure issues, power grid attacks are also becoming more frequent. The North American Electric Reliability Corporation [estimates that attacks rose 71 percent](#) in 2022 compared to 2021 and are expected to continue to increase in 2023.

Transportation Accidents

From 2021 to 2022, transportation accidents (aircraft, maritime, rail and road) increased 296 percent in the U.S. and 211 percent globally. Organizations must consider the cascading effects on other areas of the business. Minor transportation incidents can stop personnel in their tracks, while major events can escalate and interrupt the delivery of goods and services well beyond company property damage.

296%

increase in
transportation
accidents in
the U.S.

Consider the [February 2023 train derailment in East Palestine, Ohio](#). It continues to affect an entire region. According to reports, the trains were carrying hazardous materials, such as vinyl chloride, that leaked after the crash and caught fire. When the weather and atmosphere changed a few days later, officials feared the chemicals would explode. Authorities were forced to do a controlled burn.

The cascading effects went beyond temporarily displacing residents due to harmful chemicals released into the atmosphere. Approximately 3,500 nearby fish died — spanning 12 species — bringing into question the water quality in the region. For residents and agricultural businesses in the area, a train that previously had no direct correlation to their business has now left lasting uncertainty.

Now more than ever, organizations must sufficiently prepare for all physical threats and the dynamic risks that may follow. Readiness should start with action and planning in the C-suite. This could mean creating processes for expediting the release of emergency funds, ensuring staff members are trained in multiple disciplines, enabling remote work capabilities (if applicable) and keeping lines of communication open.

*See Appendix on the last page of Report for the Methodology.