## Building Business Resilience to Climate Change

## WEATHERING THE STORM

In 2012, 800+ major weather-related disasters worldwide led to more than \$130 billion in losses, with the most costly events (Hurricane Sandy and the Midwest drought) occurring in the United States. Climate scientists tell us to expect more frequent and intense heat waves, higher sea levels, and more severe droughts, wildfires, and downpours. These extreme weather events can severely disrupt a company's operations, facilities, logistics and supply chains.

**EXTREME WEATHER IS COSTLY** 



**\$65** billion

Estimated damages from Hurricane Sandy in the U.S. Northeast in October 2012.



**\$20** billion

Overall U.S. crop losses in droughtravaged 2012, more than twice an average year's losses.



Losses associated with wildfires in Texas, New Mexico and Arizona during 2011.

# **\$15-\$20** billion

Losses from extensive flooding in Thailand in 2011 that badly damaged global automotive and electronics suppliers.

#### **RISKS TO BUSINESS**

Risks cited by companies in the Standard & Poor's Global 100 Index:



**Production** delays Extreme weather causes power outages or shortage of key supplies.



#### Higher operation costs

Changing resource availability leads to higher supply costs or greater need for backup power.



#### Temporary closures

Extreme weather shuts down facilities or interrupts communications, transportation or power systems that are critical for operations.



#### Higher capital costs

Insurance rises in price or becomes unavailable in flood-prone or coastal areas; capital needs increase for plant upgrades.

17%



## Reduced demand

Shifts in market preferences or customers' ability to pay dampen product demand.

5 years



Experiencing impacts now



MOST

#### HOW COMPANIES ARE BEGINNING TO RESPOND



Incorporate climate risks into conventional business continuity/risk management plans.



Assess site-specific climate or water vulnerability.

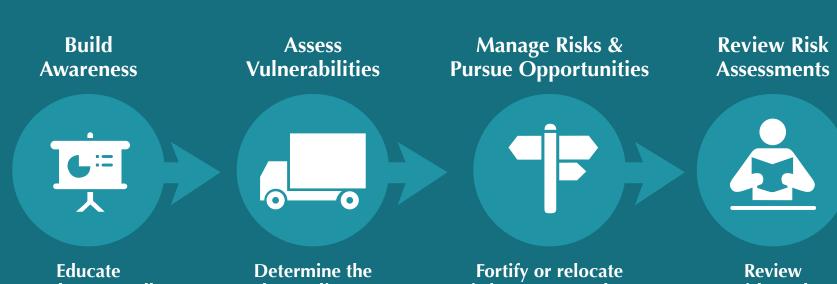


Upgrade infrastructure or equipment.



Rely on insurance to transfer risk. Employ climate-specific risk modeling tools.

### FOUR STEPS FOR MANAGING CLIMATE RISKS



employees at all levels about the need to build the adaptive capacity to manage risks in the long term. threat climate disruption poses to core operations, supplies, work force, customers, and key services. for changes in water availability, or review supply chain vulnerabilities. risks and opportunities regularly and develop adaptive risk management plans.

Graphic based on "Weathering the Storm: Building Business Resilience to Climate Change." C2ES would like to acknowledge Bank of America for its collaboration and generous financial support. Learn more at www.c2es.org/initiatives/business-adaptation.

Sources: Center for Climate and Energy Solutions, Munich Re, National Oceanic and Atmospheric Administration, Aon Benfield, Lloyd's of London.

