

Climate issues are top global concerns



Mitigation and adaptation efforts may not be enough to address the rise of climate risks. That's the conclusion of **The Global Risks Report 2016**, produced by the World Economic Forum, which addresses the most pressing issues confronting the world and the potential impacts to people, institutions and economies.

The Global Risks Report 2016 ranks the failure of climate change mitigation and adaptation as the most impactful global risk, with water crises ranking third.

The report is based on a survey by nearly 750 members of the World Economic Forum's global community across 140 economies. The report also identifies opportunities to build resilience against these risks and calls for a "resilience imperative."

“

After its presence in the top five most impactful risks for the past three years, the failure of climate change mitigation and adaptation has risen to the top and is perceived in 2016 as the most impactful risk for years to come.”

The Global Risks Report 2016



The Global Risks Report 2016

Top 10 risks in terms of Likelihood

- 1 Large-scale involuntary migration
- 2 Extreme weather events
- 3 Failure of climate-change mitigation and adaptation
- 4 Interstate conflict
- 5 Natural catastrophes
- 6 Failure of national governance
- 7 Unemployment or underemployment
- 8 Data fraud or theft
- 9 Water crises
- 10 Illicit trade

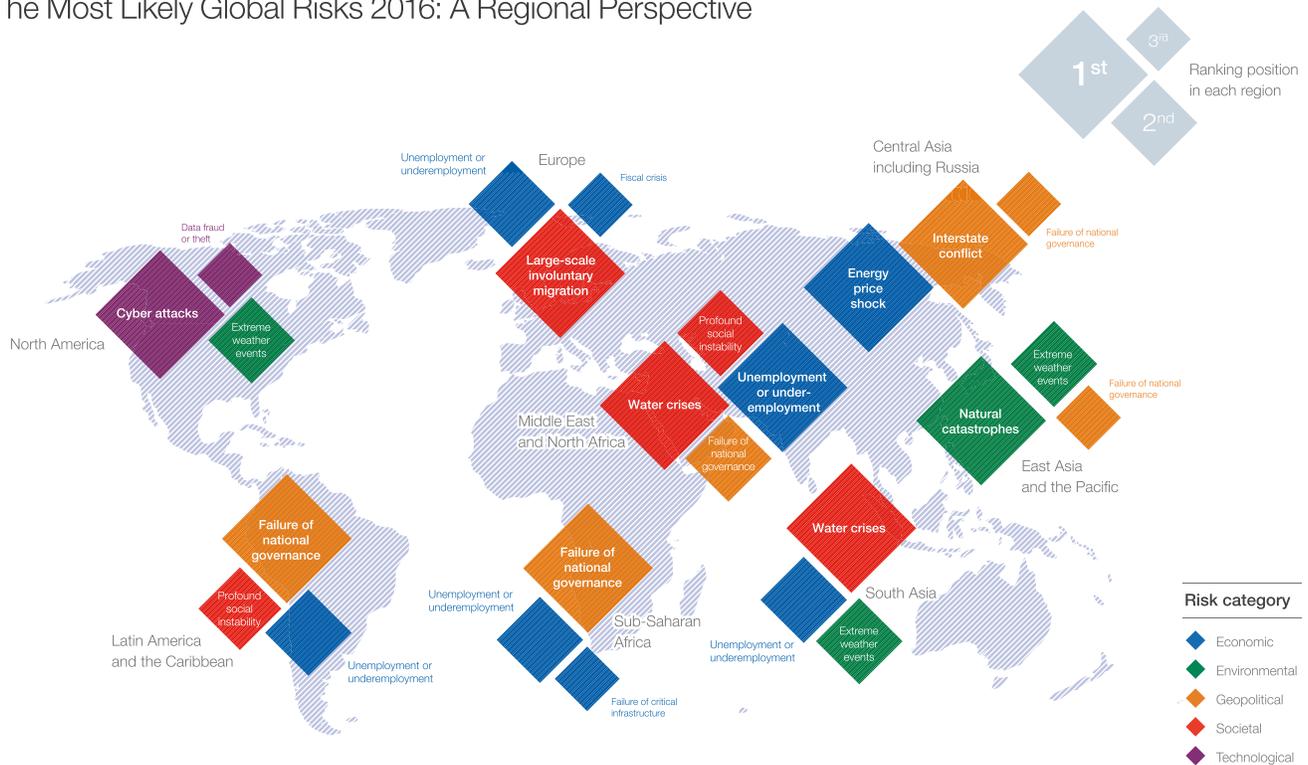
Top 10 risks in terms of Impact

- 1 Failure of climate-change mitigation and adaptation
- 2 Weapons of mass destruction
- 3 Water crises
- 4 Large-scale involuntary migration
- 5 Energy price shock
- 6 Biodiversity loss and ecosystem collapse
- 7 Fiscal crises
- 8 Spread of infectious diseases
- 9 Asset bubble
- 10 Profound social instability

Categories

- ◆ Economic
- ◆ Environmental
- ◆ Geopolitical
- ◆ Societal
- ◆ Technological

The Most Likely Global Risks 2016: A Regional Perspective



Source: Global Risks Perception Survey 2015.

The Global Risks Report 2016 finds that:

- Water crises, loss of biodiversity and ecosystem collapse are rising on the list of concerns.
- The world is already seeing early effects of climate change through higher frequency and higher impact of water shortages and floods.
- Water demand is projected to exceed sustainable supply globally by 40% in 2030.
- Warming of our planet is unequivocal, with 2016 temperatures expected to be 1° Celsius above pre-industrial era temperatures.
- Interrelated risks also include food security, large-scale involuntary migrations, biodiversity loss and ecosystem collapse.

Businesses increasingly exposed to global risks

The impact of climate change will be felt in businesses across the globe, states the report, in the forms of rising costs, supply chain vulnerabilities, distribution and transportation infrastructure, business interruption and market volatility.

While internationalization of information and communications technologies has linked trade and investment ever more tightly, helping companies lower production costs, it also increases exposure to global risks. Companies are vulnerable, even if they have no immediate presence in the risk area. A company's resilience depends heavily on the resilience of its suppliers and purchasers, whose supply chains can now span multiple countries.

"Businesses need to strengthen their scenario and emergency planning capacity to analyse [sic] complex and often uncertain interdependencies if they are to build resilience to global risks," according to the report.

Mitigation and adaptation

Companies need to assess and prioritize actions to manage risks and opportunities, adds the Network for Business Sustainability.¹ The Network offers four key reasons why adaptation to a changing climate should be on a company's radar.

1. Climate adaptation can have immediate benefits and help with long-term positioning. Investments in managing current business risks from weather, water and environmental shifts become even more justified in a changing climate.
2. Stakeholders expect more. Lenders, investors, insurers, and regulators are increasingly interested in climate change, expecting more information and action from firms.
3. Soft costs do not equal small costs. It's difficult to manage what you can't measure. The value of business reputation is huge. A tarnished reputation due to perceived lagging or negligence on an issue can drive down share price and raise the cost of debt.
4. If you don't act, others will. There are competitive opportunities associated with a changing climate — opportunities to access new markets, develop new technologies and products, and stay ahead of regulation. These can be a source of competitive advantage — or disadvantage, if a competitor gets there first.

Companies are vulnerable to climate risks, even if they have no immediate presence in the risk area.



The resilience imperative

The Global Agenda Council (GAC) on Risk & Resilience, as part of The Global Risks Report 2016, advocates building resilience at national and global levels:

1. **Clarify C-level risk and incident roles and responsibilities.** Outline senior level and crisis manager roles, ensure your organization's environmental risk readiness with training and exercises and be ready to adjust your plans as needed.
2. **Develop crisis leadership characteristics** of openness, transparency, responsiveness and accountability.
3. **Leverage relevant, trustworthy expertise.** Arrange expert networks in advance across multiple sections and disciplines.
4. **Create an integrated risk management culture.** All parts of an organization, including the supply chain, need to partner with risk management because of the potential cascading consequences of risks.

Building water resilience

The Global Agenda Council on Risk & Resilience² also takes a deep dive into the issue of building resilience to water crises. Recommendations for building water resilience include:

- **Make decisions based on scientific evidence.** Transparency and trust, built on a science and evidence basis for water issues, will provide a neutral platform for collaboration among communities, governments and businesses to manage water sustainably.
- **Invest in risk understanding.** Understanding the effects of water crises in the future will require better ways to understand, model and visualize how and where such crises could occur.
- **Innovate to create new decision support systems.** Improved decision support systems could help to reconcile competitive uses for water at local and regional levels.
- **Identify effective practices and assess scalability.** Governments and communities must develop long-term strategies to account for greater fluctuations of precipitation.
- Read the full Resilience Insights recommendations. http://www3.weforum.org/docs/GRR/WEF_GAC16_Risk_Resilience_Insights.pdf

Resilience to extreme weather events

In the U.S., extreme weather events have been growing in frequency and magnitude. "Extreme weather events are a major consequence of climate change and are becoming more frequent, powerful and erratic," states a World Economic Forum report.³

"Certain types of extreme weather events with links to climate change have become more frequent and/or intense, including prolonged periods of heat, heavy downpours and, in some regions, floods and droughts," reports the National Climate Assessment.⁴

The Intergovernmental Panel on Climate Change (IPCC) is a leading international body for the assessment of climate change, including the physical science of climate; impacts, adaptation, and vulnerability; and mitigation of climate change. The IPCC 2014 report⁶ suggests that disaster risk management and adaptation to climate change focus on reducing exposure and vulnerability and increasing resilience to the potential adverse impacts of climate extremes.

The IPCC suggests implementing low-regret measures for managing changing risks of climate extremes and disasters. Low-regret measures are starting points to address projected exposure, vulnerability and climate extremes; these measures have the potential to offer immediate benefits as well as lay the foundation for anticipated changes.

Low-regret measures could include an early-warning system; improved communication between decision-makers and the community; improved health surveillance, water supply, sanitation and irrigation and drainage systems; climate-proofing infrastructure; developing and enforcing building codes; and improving education and awareness.

The national economic losses due to climate change are predicted to cost \$1.2 trillion through 2050, according to U.S. Global Change Research Program.⁵

Climate risks and opportunities for industries

Manufacturing

Manufacturing is not immune to climate change effects, reports the Center for Climate and Energy Solutions (C2ES). As a sector, manufacturing represents nearly one-fifth (19 percent) of domestic direct emissions, and it is indirectly responsible for an additional 11 percent of emissions through electricity use. “Manufacturing will be significantly impacted by any future climate change regulatory regime,” C2ES notes, and must now “begin to confront the risks and opportunities that climate change presents.”⁷

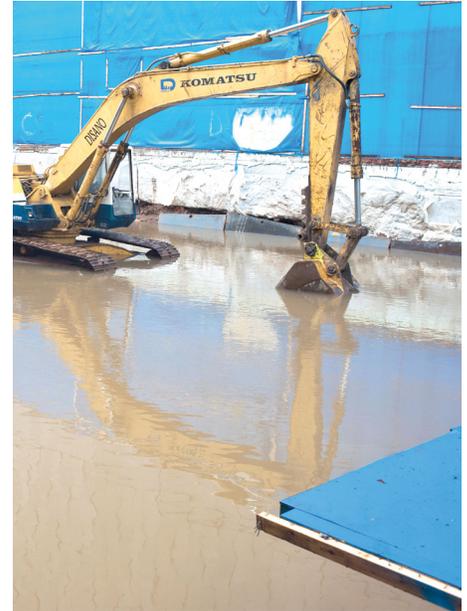
“Green” opportunities include using cleaner or renewable sources of energy, reducing greenhouse gas emissions and energy usage, and improved manufacturing technology and materials which can reduce the impact from extraction and processing of materials. Some firms are also “greening” their supply chains by reducing packaging and making transportation more efficient.

Construction

The construction industry also faces growing challenges from climate risks. The construction sector faces constrained availability, increased cost of materials, impacts of changing weather patterns on construction schedules and costs, limits on development opportunities and stricter limits on waste and pollution.

The United Nations Environment Programme (UNEP), SustainAbility and Green Light Group report, GEO-5 for Business: Impacts of a Changing Environment on the Corporate Sector⁸, notes that :

- The industry is responsible for more than a third of global resource consumption (including 12 percent of all fresh water use) and generates about 40 percent of the total volume of solid waste, while manufacturing building materials uses about 10 percent of the global energy supply.
- As concerns about climate change, waste and resource scarcity increase, the construction industry could expect to come under increasing pressure to address its environmental impacts and to hasten the proliferation of sustainable, affordable construction practices.
- The industry could experience increased market demand for sustainable infrastructure and buildings, storm-damage repair and reconstruction, energy-efficient retrofits and technologies, and climate-resilient structures.



Healthcare

The Addressing Climate Change in the Health Care Setting report⁹ finds that healthcare spends \$5.3 billion on energy annually, which makes reducing the sector's greenhouse gas emissions critically important.

The report cites the Department of Energy (DOE) finding that "The health care industry has a critical role to play in climate change mitigation. Energy usage in medical facilities is highly intensive. In fact, hospitals expend about twice as much total energy per square foot as traditional office space."

The industry's commitment to health can be demonstrated through developing and implementing of climate change action plans, says the organization. That can be good for the health of the nation as well as the health of the company's bottom line.

Zurich recognized for climate resilience activities

In 2014, Ceres, a nonprofit organization, ranked Zurich a leader among insurance companies in the United States for its activities in response to escalating climate risks. Zurich North America was one of only nine of the nation's 330 largest insurance companies to achieve a "Leading" designation.¹⁰

According to Mike Foley, Zurich's North America Commercial CEO and Regional Chairman of North America, "The 'Leading' designation among U.S. insurers by Ceres validates our strategy and focus on climate change-related topics and the collaboration and hard work of many colleagues around the world."



References

- World Economic Forum. The Global Risks Report 2016
<https://www.zurichna.com/en/knowledge/articles/2016/01/global-risks-report-2016>
1. Network for Business Sustainability, National Round Table on the Environment and the Economy. "Managing the business risks and opportunities of a changing climate. A primer for executives on adaptation to climate change." December 2011.
<http://nbs.net/wp-content/uploads/Adaptation-to-Climate-Change-Primer.pdf>
 2. World Economic Forum Global Agenda Council on Risk & Resilience. Resilience Insights. 2016.
http://www3.weforum.org/docs/GRR/WEF_GAC16_Risk_Resilience_Insights.pdf
 3. Najam, Adil. 7 "Increasing Occurrences of Severe Weather Events." World Economic Forum. 2015.
<http://reports.weforum.org/outlook-global-agenda-2015/top-10-trends-of-2015/7-increasing-occurrence-of-severe-weather-events/>
 4. National Climate Assessment. Overview of Climate Change Impacts in the United States.
<http://nca2014.globalchange.gov/highlights/overview/overview>
 5. "Written testimony of NPPD Office of Infrastructure Protection Assistant Secretary Caitlin Durkovich and PLCY Assistant Secretary David Heyman for a Senate Committee on Homeland Security and Governmental Affairs hearing titled 'Extreme Weather Events: The Costs of Not Being Prepared'." U.S. Department of Homeland Security website. Retrieved February 1, 2014.
<https://www.dhs.gov/news/2014/02/12/written-testimony-nppd-and-plcy-senate-committee-homeland-security-and-governmental>
 6. Climate Change 2014 Synthesis Report. Intergovernmental Panel on Climate Change (IPCC). 2015.
http://www.ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf
 7. Semans, Juliani and de Fontaine. "A Climate of Change: Manufacturing Must Rise to the Risks and Opportunities of Climate Change." Center for Climate and Energy Solutions (C2ES).
<http://www.c2es.org/newsroom/articles/climate-change-manufacturing-must-rise-risks-and-opportunities-climate-change>
 8. United Nations Environment Programme (UNEP), SustainAbility and Green Light Group. "GEO-5 for Business: Impacts of a Changing Environment on the Corporate Sector." 2013.
http://www.unep.org/geo/pdfs/geo5/geo5_for_business.pdf
 9. Addressing Climate Change in the Health Care Setting: Opportunities for Action. Practice Greenhealth and Health Care Without Harm.
<https://practicegreenhealth.org/pubs/toolkit/reports/ClimateChange.pdf>
 10. Insurer Climate Risk Disclosure Survey Report & Scorecard: 2014 Findings & Recommendations. Ceres. 2014.
<http://www.ceres.org/resources/reports/insurer-climate-risk-disclosure-survey-report-scorecard-2014-findings-recommendations>

Zurich American Insurance Company

1400 American Lane, Schaumburg, IL 60196-1056
800 382 2150 www.zurichna.com

The information in this publication was compiled from sources believed to be reliable for informational purposes only. All sample policies and procedures herein should serve as a guideline, which you can use to create your own policies and procedures. We trust that you will customize these samples to reflect your own operations and believe that these samples may serve as a helpful platform for this endeavor. Any and all information contained herein is not intended to constitute legal advice and accordingly, you should consult with your own attorneys when developing programs and policies. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with this publication and sample policies and procedures, including any information, methods or safety suggestions contained herein. Moreover, Zurich reminds you that this cannot be assumed to contain every acceptable safety and compliance procedure or that additional procedures might not be appropriate under the circumstances. The subject matter of this publication is not tied to any specific insurance product nor will adopting these policies and procedures ensure coverage under any insurance policy.