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# STORMY WEATHER – BUSINESS CONTINUITY & CLIMATE CHANGE

BY REGINA PHELPS



Climate change – it’s almost impossible to pick up a newspaper, magazine, or journal without seeing at least one article on the topic. Even just a couple of years ago, this wouldn’t have been the case. Why the sudden change? Was it Al Gore? Was it the movie, *An Inconvenient Truth*? Was it the polar bear being designated a threatened species? The answer is that it was all of the above.

### Fact or Fiction?

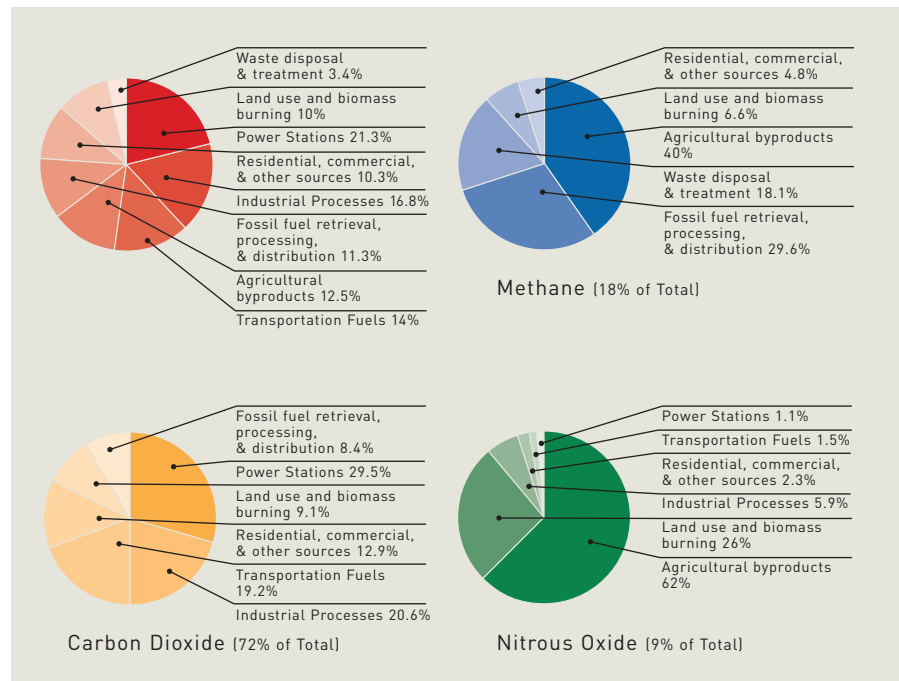
Overwhelmingly, the scientific community believes that climate change is upon us. Where the debate seems to have stalled is regarding the actual cause of this change. Natural planetary cycles? Man’s destructive impacts? Some combination of the two? Interesting though this debate may be, as continuity planners, we shouldn’t get “hung up” on the cause, we must focus our attention instead on the effects of climate change, and to develop plans to mitigate, prepare, respond, and recover.

### Definitions

It is important to start with a few basic definitions.

**Climate change** is simply the variation in the Earth’s global climate, or in regional climates over time. It involves changes in the average state of the atmosphere over time, ranging from decades to millions of years. Climate is impacted by the dynamic processes on Earth, external forces (including

## Annual Greenhouse Gas Emissions by Sector



variations in sunlight intensity) and, more recently, by human activities.

**Greenhouse Gases (GHGs)** are the components of the atmosphere that contribute to the greenhouse effect. GHGs are essential for our survival – without their effects, the Earth would be uninhabitable. In the absence of GHGs, the mean temperature of the earth would be about -19 °C.

GHGs come from a variety of natural sources, and from human activity. In the order of relative abundance they include: water vapor, carbon dioxide, methane, nitrous oxide, and ozone.

### An Increase in Natural Disasters

Munich Re (the world’s second largest reinsurance company) reported that 2007 had the most natural disasters – 960 incidents – since it began keeping such records in 1974.<sup>1</sup> In 2006, it recorded 850 incidents. These natural disasters included earthquakes, tsunamis, windstorms, floods and extreme temperature events (e.g., heat waves, wildfires), mass movement (i.e., avalanches, landslides), and hurricanes. Overall losses exceeded \$83 billion USD – that’s billion with a ‘B.’ Some of

the worst events are listed below:

#### January 2007: Storm Kyrill

This storm affected large parts of Northern and Western Europe. It produced hurricane-force winds, resulting in insured losses of about \$5.8B USD, and total economic losses of approximately \$10B USD.

#### June – July 2007: Flooding in the UK

Widespread flooding occurred in Great Britain over a two-month period. It led to insured losses of about \$3B USD, and total economic losses of \$4B USD.

#### July – November 2007: South Asia Flooding

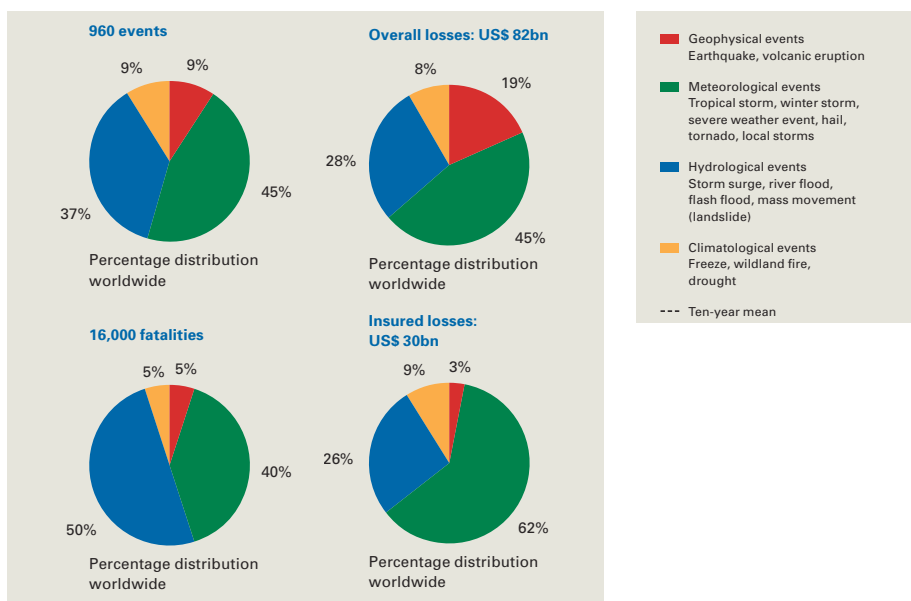
The floods that lasted over five months created a huge amount of human suffering. Over 20 million people were displaced. This resulted in well over 6,600 deaths and economic losses of \$1B USD.

#### October 2007: California Wildfires

Southern California is no stranger to disaster, particularly wildfires. The fires in the fall of 2007 caused the largest evacuation in the state’s history. Over 410,000 acres burned, and more than 2,100 structures were destroyed. The insured losses were at least \$1.9B.

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## Natural Disasters 2007



### What are the Effects of Climate Change on Business?

Climate change presents very different problems than we normally face – in many ways, it resembles an influenza pandemic. The three key effects include:

The impact is global – we will all go through this together; however, some areas will suffer more than others.

The problem is long-term – it will not resolve quickly, if ever.

The harm may be irreversible.

### Seven Risks of Climate Change

There are seven risks to business associated with climate change.<sup>2</sup>

#### 1. Regulatory

The impact is likely in two ways:

- There will be regulation on emissions of products (i.e., lawnmower or car emissions).
- Regulation on the manufacturing process used to create products.

#### 2. Supply chain

Every company will need to assess their supply chain in relationship to climate change.

- Are any of your suppliers vulnerable to regulation?
- What will be the increased cost to suppliers to comply with regulations?
- Will your supplier network be unable to continue to supply you products

due to increased costs or lack of available raw materials?

#### 3. Product and technology risks

Some companies will do better than others in a carbon-constrained world. Some will be able to minimize their risk by creating “climate-friendly” products and services. This is already becoming a common theme in advertising and the framing of products and services.

#### 4. Litigation

Companies that create large amounts of GHGs will likely see litigation in the future reminiscent of asbestos, tobacco, and even the fast-food industry.

#### 5. Reputation

Companies who do not embrace a more carbon-neutral business model will likely be judged in the court of public opinion. This will have impacts on consumer choices and investment opportunities.

#### 6. Financial

Three of the nation’s largest investment banks have developed new environmental standards to help lenders evaluate risks associated with investments in coal-fired power plants. Citibank, JP Morgan Chase, and Morgan Stanley issued “Carbon Principles” (February 4, 2008), making it more difficult for coal plants to secure financing. The focus of the principles will be to steer

power companies away from plants that emit high levels of carbon dioxide and focus on new, cleaner and renewable technologies. (The principles do not, however, strictly prevent any of the banks from financing the plants.)

### 7. Physical

Continuity planners will have their work cut out for them when addressing the plethora of physical risks associated with climate change.

- Flooding – 100-year floods happening more often
- Droughts – for protracted periods of time and in larger areas, which will lead to an overall decrease in potable water in more places
- Extreme heat – potential power outages and brown-outs
- Extreme winter cold – natural gas shortages
- Hurricanes, tornados, windstorms – more frequent, and stronger
- Crop failures – impacting agricultural production
- Decrease in fish populations
- Famine – which destabilizes countries and regions, which increases population displacement, which causes widespread migrations, which lead to border tensions
- Insect infestation
- Increase in diseases and epidemics
- Spread of “unusual illnesses” – such as ‘Chikungunya,’ a mosquito-borne disease which had previously been seen only in Asia and Africa, and is now being found in Europe, and malaria spreading into “non-malaria” locations
- Rising sea levels across the globe, which will impact some of the largest cities in the world, including:  
*Bangkok*  
*Guangzhou*  
*Hong Kong*  
*Kolkata (Calcutta), India*  
*London*  
*Miami*  
*Mumbai*  
*New York*  
*Shanghai*  
*Tianjin (China)*  
*Tokyo*
- National security – in a study released in April, 2007, climate change overall

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is “perceived as a threat to national security,” by the U.S. Military

### Climate Change Strategies

#### Quantify the company's carbon footprint

Before you can really develop a program to reduce GHGs, you need to know where your company currently stands. This involves understanding the source and level of GHGs, which will need to be tracked over time to get the whole picture, and also to be able to note improvements over time. This tracking and examination will likely lead to heightened awareness, with the possibility of cascading benefits to all involved. This process will expose broader risks and overall opportunities.

#### Assess risks and opportunities

What are the risks and opportunities to

**What we do as a profession best is to plan for those things that no one ever wants to happen.**

the business? Once you have a handle on your carbon footprint, you can begin to understand both the direct and indirect impact to your business. Now you have the opportunity to think strategically about the seven risks to your business. You have begun to explore what may hurt the business and what will provide opportunities to the business.

#### Adaptive in response

Armed with a good understanding of the big picture, adaptive response strategies can be developed, reviewed, and adopted. This is, of course, where emergency managers and BCP professionals excel, taking us back to the core aspects of our work: mitigation, preparedness, response, and recovery.

- **Mitigation** – What can be done to minimize projected losses? This could include changing business locations for mission-critical processes, procuring new equipment, or adapting

existing equipment to meet the new challenge.

- **Preparedness** – What can be done to prepare staff and facilities? This includes developing plans and processes for new risks, educating and training staff, building awareness, and conducting exercises.
- **Response** – Develop appropriate response plans based on findings and analysis.
- **Recovery** – Reassess BCPs based on above. What needs to be changed or added to recovery plans to meet the new risks?

### What Does This Mean Going Forward?

Climate change will be viewed as a significant risk going forward.

How can emergency managers and BCP professionals stay ahead of the curve? Begin by reviewing your current risk assessment and hazard analysis for new risks or changes in existing risks. Then go back and look at your Business Impact Analysis (BIA) and note if any mission-critical functions have greater exposures or are at a heightened risk. Then assess each business continuity plan and your overall disaster recovery plan in view of your findings.

Always go back to industry touchstones and ask yourself what can be done in the areas of mitigation, preparedness, response, and recovery to better position and protect the company.

#### Now What?

What we do as a profession best is to plan for those things that no one ever wants to happen. Emergency managers and Business Continuity professionals have a unique opportunity to be forward thinking regarding climate change. Don't put your head in the sand and pretend it isn't happening. Be bold, open, and innovative in your thinking and planning.

#### ABOUT THE AUTHOR

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## What can you personally do about climate change?

- Understand the consequences of your daily choices.
- Consider low-carbon products and a low-carbon lifestyle.
- Consider low-carbon investments in your home: insulation, solar, etc.
- Buy recycled products.
- Practice the three R's – Reduce, Reuse, Recycle.

#### REFERENCES

<sup>1</sup>Münchener Rückversicherungs-Gesellschaft, 2008.

<sup>2</sup>Competitive Advantage on a Warming Planet, by Jonathan Lash and Fred Wellington, Harvard Business Review, March 2007.