Climate Change and Business Continuity

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Climate change is having, and will continue to have, a large impact on many organizations. The effects of climate change can be seen in severe flooding, storms, heat waves and droughts. Climate change represents a risk that can not be mitigated easily and will, in some way, impact your organization.
Agenda

- Discuss Climate Change
- Organizational Impacts
- Determination of Risk
- Strategies
- Business Continuity Impact Checklist
- Group Discussion
Climate Change

“Every business continuity manager has a duty to assess the risks and to determine the threats to their organisation. Business continuity is about the long-term survival of your organisation and climate change may be one of the biggest threats you face.”

• Climate Change is a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.
  (www.climate.org.ua/int_agr/unfc/unfc_003.html)

• We are being directly affected by extreme weather and that is having an impact on:
  – Agriculture
  – Health and safety
  – Water supplies
  – Energy generation and utilization
  – Trade

• Climate change can eventually have geo-political ramifications
  – Unstable governments
  – Political unrest

1 David Honour, Continuity Central http://www.continuitycentral.com/feature 0198.htm

Climate Change

• Climate scandal in the news
  – Climate change scientists “cooking the books” on effects of climate change
  – “Consensus” vs. Science

• Drivers
  – Huge financial opportunities
  – Green agendas
  – Political opportunity
Climate Change

• We are not here to debate climate change.

• Let’s accept:
  – That the world’s environment is indeed changing
  – Green House Gasses (GhGs) have an adverse impact on the climate
  – Other human activities are impacting climate change
    • Land use
    • Fossil fuel consumption
    • Waste disposal
  – Climate change will affect your operations

Organizational Impacts

• Climate change will impact your organization by:
  – Increasing your risk profile
    • Flooding
    • Storm
    • Heat waves
    • Droughts
  – Directly affecting your people’s ability to work
    • Absenteeism to deal with climate related events
  – Directly affecting your operations
  – Directly affecting your suppliers and critical vendors
  – Directly affecting your customers
Seven Risks of Climate Change

Regina Phelps, an internationally recognized expert in the field of emergency management and contingency planning, identified Seven Risks of Climate Change. The following information is taken from her paper "Stormy Weather – Business Continuity and Climate Change" [source].

The Risks are:
- Regulatory
- Supply Chain
- Product/Technology
- Litigation
- Reputation
- Financial
- Physical

### Seven Risks of Climate Change

- **Regulatory**
  - There will be regulation on emissions of products
    - Lawnmowers
    - Car emissions
    - Truck/Rail emissions
  - Regulation on the manufacturing process to create products

- **Supply Chain**
  - Every company will need to assess their supply chain in relationship to climate change
    - Suppliers vulnerable to regulation
    - Increased cost
    - Ability for suppliers to "afford" to make products

Source: Stormy Weather – Business Continuity and Climate Change [source]
Seven Risks of Climate Change

- **Product/Technology**
  - Some organizations will do well
    - Create “climate friendly” products and services
    - New technologies
    - New jobs
    - Evolving industry
  - Other organizations will suffer
    - Carbon producers
    - “Heavy manufacturing”

- **Litigation**
  - Large Green House Gas producers will face increased litigation
    - Violation of contracts
    - Service level agreement

Source: Stormy Weather – Business Continuity and Climate Change
http://www.disaster-resource.com/articles/08p_046.shtml

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Seven Risks of Climate Change

- **Reputation**
  - Companies that do not embrace a more carbon-neutral business model will suffer brand damage
  - Consumers will “vote with their feet” and seek products/services elsewhere

- **Financial**
  - Making it difficult to obtain financing/credit. Citibank, JP Morgan Chase and Morgan Stanley created “Carbon Principles” (February 2008) forcing power plants to focus on new cleaner renewable technologies
  - Insurance costs/premiums

Source: Stormy Weather – Business Continuity and Climate Change
http://www.disaster-resource.com/articles/08p_046.shtml
Seven Risks of Climate Change

• Physical
  – This area is the most critical for continuity planners. We must think and plan for physical threats such as:
    • Flooding - 100 year floods more often
    • Droughts – decrease in potable water
    • Extreme heat – strain on power grids leading to outages
    • Extreme winter cold – natural gas shortages
    • Hurricanes, tornados, windstorms
    • Crop failures – leading to reduced agricultural production
    • Famine
    • Rising sea levels
    • National security

Source: Stormy Weather – Business Continuity and Climate Change* [http://www.disaster-resource.com/articles/08p_046.shtml](http://www.disaster-resource.com/articles/08p_046.shtml)

Determination of Risk

• How do you quantify how Climate Change will affect your business?
  – Risk Assessment
    • Incorporate climate change items into your annual risk assessment
    • Obtain objective review of risk assessment assumptions, data and findings
    • Conduct the risk assessment in a workshop environment where you can gather input from a number of people – not just one person’s opinion
    • Risk rate your key suppliers/vendors and even major customers
    • Act on the data that you receive – do not wait until “later” to deal with the information

* Continuity Insights Management Conference April 12-14, 2010 Sheraton New Orleans
Risk Strategies

• In "risk 101" we learned about the four choices to handle risk.
  – Acceptance: A risk might be acceptable without any further action to be taken. Even if the risk is not acceptable the ability to do anything about some risks might be limited or the cost of taking any action might be too great.
  – Contain: A risk that is expected to happen on a reasonably frequent basis but does not have a major impact on the business. The solution is to arrange a containment measure that will prevent the risk from getting out of hand.

Risk Strategies Continued

• Plan: There are risks that can be planned for and these must be included in your continuity plans. These are usually low probability and high impact risks that countermeasures can not be cost effectively developed.

• Prevent: These risks can be prevented and you need to develop and implement measures to overcome them. These measures tend to be cost effective. These events are likely to occur.
Risk Matrix

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<th>Low Probability/High Impact</th>
<th>High Probability/High Impact</th>
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<tbody>
<tr>
<td>Unauthorized Access to Data</td>
<td>Fire</td>
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<table>
<thead>
<tr>
<th>Low Probability/Low Impact</th>
<th>High Probability/Low Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extortion</td>
<td>Data Entry Error</td>
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</tbody>
</table>

| ACCEPT | CONTAIN |

Strategies

- Determine based upon your risk assessment what climate change impacts will affect your operations
  - Take appropriate actions:
    - Flooding:
      - Develop flood plan
      - Move critical operations/equipment/facilities
    - Temperature Extremes:
      - Reduce heat generating equipment use
      - Deploy alternate cooling methods
  - Check insurance policies for exclusions and coverage
Business Continuity Impact Checklist

• Best practices suggest that you plan for climate change affects by considering three key areas:

  – People
    • Implications for workforce, customers and suppliers in terms of health, welfare, security and ability to work and get to work
    • Impact on building design, construction, maintenance and management
  – Assets
    • Vulnerability of key assets to climate change-related disasters
    • Availability of key assets such as workforce, premises and technology
    • Prohibitive cost of key assets and utilities

* Source: The business Continuity Journal, Volume Two, Issue One: The Rising Tide Climate Change and Business Continuity

Business Continuity Impact Checklist

• Assets Continued:
  – Prohibitive cost of key assets and utilities
  – Vulnerability of supply chain, logistics and transport
  – Impact of weather on your organization, your customers and competitors
  – Financial implications such as insurance premiums, cost of recovery, stakeholder’s investment
  – Changing demand for services- those that you depend on and those you provide
  – Cost of raw materials

* Source: The business Continuity Journal, Volume Two, Issue One: The Rising Tide Climate Change and Business Continuity
Business Continuity Impact Checklist

• Business Priorities
  – Impact on business process
  – Cost of protecting key assets e.g. insurance, flood-proofing etc
  – Cost of recovery and damage to key assets
  – Cost of increased absenteeism
  – Loss of productivity
  – Competitive disadvantage

Source: The business Continuity Journal, Volume Two, Issue One: The Rising Tide Climate Change and Business Continuity

Group Discussion

• What are your business continuity objectives and how does Climate Change affect them?
• How do we incorporate Climate Change into our business continuity approach?
• Are your plans now able to deal with the effects of Climate Change?
• Do you think that Climate Change is something that you need to deal with in terms of business continuity?
Summary

• Climate Change will have an effect on your business
• Consider Climate Change when you perform your annual risk assessments
• Update your plans based upon your new risk profile
• Communicate with your key suppliers/customers and business partners about how Climate Change can affect them

Thank you

Questions?