

RMI Risk Masters, Inc.

Business Continuity Management

Managing Risk of Disruption in the Global Enterprise

November 18, 2009

Today's Agenda

Our agenda for today's presentation includes:

- Identify Drivers Behind Concern Over Global Resilience
- Discuss What Constitutes a Global Threat
- Framework for Global BCM Solution Deployment
- Trends in Global BCM Risk Management
- Planning Considerations for Managing Global BCM Risk

What is Driving Concern Over Global Resilience?

Investment in business resilience, both domestically and globally, is a key enabler of competitive advantage.

- “Globalization, technological complexity, interdependence, terrorism, climate and energy volatility, and pandemic potential are **increasing the level of risk** that societies and organizations now face.”
- “Risks also are **increasingly interrelated**; disruptions in one area can cascade in multiple directions.”
- “The **ability to manage** emerging risks, anticipate the interactions between different types of risk and bounce back from disruptions will be a competitive differentiator in the 21st century.”

Source: Transform – The Resilient Economy: Integrating Competitiveness and Security, Council on Competitiveness, 2007

Universe of Disruptive Threat Events

Threat events can originate from any number of sources, both natural and man made, and each will have unique geographic implications for scope of geographic disruption.

Category	Disruptive Threat Events Considered for Assessment			
Natural Hazards	<ul style="list-style-type: none"> • Earthquake • Hurricane • Tidal Wave • Tornado 	<ul style="list-style-type: none"> • Landslide • Flood • Heat Wave • Blizzard/Ice Storm 	<ul style="list-style-type: none"> • Lightning Storm • Nor'easter • Wildfire • Pandemic 	<ul style="list-style-type: none"> • Drought • Sand Storm • Climate Change • Volcano
Accidental Hazards	<ul style="list-style-type: none"> • Building Fire • IT Hardware Failure • Errors/Omissions • Airplane Crash 	<ul style="list-style-type: none"> • Hazmat Release – Chemical Plant • Hazmat Release – Railroad Tanker Car • Hazmat Release – Commercial Truck • Nuclear Power Plant Radiation Leak 	<ul style="list-style-type: none"> • Building Collapse • Dam Collapse • Bridge Collapse • Explosion 	
Intentional Acts	<ul style="list-style-type: none"> • Bombing • Civil Disorder • Vandalism • Arson 	<ul style="list-style-type: none"> • Bio-Terrorism • Dirty Bomb • Brute Force Attack • Embezzlement 	<ul style="list-style-type: none"> • War/Invasion • Misinformation • Cyber Attack • Electromagnetic Pulse 	<ul style="list-style-type: none"> • Shipping Quarantine • Nuclear Bomb • Crime/Theft
Utility Disruptions	<ul style="list-style-type: none"> • Power Utility Disruption • Telecom Utility Disruption • Water Utility Disruption • Natural Gas Disruption • Airport Closure • Railroad Service Disruption • Bus Service Disruption • Roadway Closure • Diesel/Gas Fuel Disruption • Oil Supply Disruption 			

Which Threats Are Truly Global?

Few events will have a direct impact on global operations (see events in **RED**). However, systemic risk can extend the impact of a local event across the global enterprise.

Category	Disruptive Threat Events Considered for Assessment			
Natural Hazards	<ul style="list-style-type: none"> • Earthquake • Hurricane • Tidal Wave • Tornado 	<ul style="list-style-type: none"> • Landslide • Flood • Heat Wave • Blizzard/Ice Storm 	<ul style="list-style-type: none"> • Lightning Storm • Nor'easter • Wildfire • Pandemic 	<ul style="list-style-type: none"> • Drought • Sand Storm • Climate Change • Volcano
Accidental Hazards	<ul style="list-style-type: none"> • Building Fire • IT Hardware Failure • Errors/Omissions • Airplane Crash 	<ul style="list-style-type: none"> • Hazmat Release – Chemical Plant • Hazmat Release – Railroad Tanker Car • Hazmat Release – Commercial Truck • Nuclear Power Plant Radiation Leak 	<ul style="list-style-type: none"> • Building Collapse • Dam Collapse • Bridge Collapse • Explosion 	
Intentional Acts	<ul style="list-style-type: none"> • Bombing • Civil Disorder • Vandalism • Arson 	<ul style="list-style-type: none"> • Bio-Terrorism • Dirty Bomb • Brute Force Attack • Embezzlement 	<ul style="list-style-type: none"> • War/Invasion • Misinformation • Cyber Attack • Electromagnetic Pulse 	<ul style="list-style-type: none"> • Shipping Quarantine • Nuclear Bomb • Crime/Theft
Utility Disruptions	<ul style="list-style-type: none"> • Power Utility Disruption • Telecom Utility Disruption • Water Utility Disruption • Natural Gas Disruption 	<ul style="list-style-type: none"> • Airport Closure • Railroad Service Disruption • Bus Service Disruption • Roadway Closure 	<ul style="list-style-type: none"> • Diesel/Gas Fuel Disruption • Oil Supply Disruption 	

Frameworks for Global BCM Solution Deployment

Several frameworks can be applied when evaluating risk associated with deploying resiliency and recovery solutions across geographies:

Operational Criteria
<ul style="list-style-type: none">• Geopolitical risk• Geographic characteristics• Risk of natural disaster• Communications infrastructure• Depth of knowledge capital• Regulatory concerns• Regional precedence• Tax Incentives• Alignment with corporate strategy

Economic Criteria**
<ul style="list-style-type: none">• Business Freedom• Trade Freedom• Fiscal Freedom• Government Size• Monetary Freedom• Investment Freedom• Financial Freedom• Property Rights• Freedom from Corruption• Labor Freedom

**Source: Heritage Foundation – 2009 Index of Economic Freedom

Risk Masters has made the following observations of trends in global BCM investment and adoption.

- Europe has gained parity with the United States in terms of commitment and investment in BCM across a wide-range of industries.
- Asia and the Middle East still look to the U.S. as leaders in business continuity risk management practices, but international standards (e.g., BS 25999) are having an influence on where the world looks for guidance.
- “Adaptation” as a strategy for dealing with “climate change” has gain momentum around the globe, particularly outside the United States.
- BCM investment is gaining broader acceptance in the Middle East despite, although commercial alternate site solutions (e.g., Hot-Site) are less prevalent than in the U.S.
- Both globalization and de-globalization will affect risk portfolios and solution options as organizations realign their international business operations.
- Standards adoption will continue to grow and greater emphasis on process resiliency and enabling technologies (e.g., virtualization, cloud computing).

Key points to remember regarding global business continuity risk management:

- Only a limited number of threats are truly global in nature. However, organizational interdependencies can quickly turn a local disruption into an global event.
- Management of business continuity risk on a global scale requires effective governance and a systematic planning approach to risk assessment, requirements definition and solution implementation.
- Vulnerability mapping techniques should be used to analyze critical processes in order to understand interdependencies and the need for risk mitigation controls.
 - *Low-impact, high-probability* events lend themselves to investment in **avoidance** solutions.
 - *High-impact, low-probability* events lend themselves to investment in **recovery** solutions.
- Investment in risk mitigation should remain balanced between threat avoidance, operational recovery and risk transfer (insurance) solutions.
- Crisis contingency planning should anticipate scenarios, implement early warning systems, consider communications strategies and empower local decision making.
- Supply chains should receive special attention to assess vulnerabilities, current levels of resiliency and possible single points of failure.

Reference Materials on Global Risk & Resilience

The following sources may be used to assess business risk in local jurisdictions:

Reference Material	Data Description	Source Location
EM-DATA Emergency Events Database	Database on natural/technical disasters including country profiles and trends	Center for Research on the Epidemiology of Disasters (CRED) www.emdat.be
2009 Ernst & Young Business Risk Report	Ranking of top 10 strategic, compliance, operational and financial risks	www.ey.com/Publication/vwLUAssets/2009_business_risk_report/\$file/2009_business_risk_report.pdf
Global Terrorism Database – University of Maryland	Reference statistics and charting capabilities specific to terrorism	http://www.start.umd.edu/gtd/
PreventionWeb	Databases and reports identifying global hazards in local geographies	www.preventionweb.net
2009 Lloyd’s Global Business Leader Survey: Risk Priorities and Preparedness	Provides regional insights on risk conditions and identifies top 10 global risk priorities	http://us.lloyds.com/NR/rdonlyres/56852BEB-3128-45F5-B1E7-C1F88E1D5144/0/GlobalbusinessleadersurveyJuly2009.pdf
2009 Index of Economic Freedom	Assessment and ranking of economic risk and opportunity in 179 countries	The Heritage Foundation
The Resilient Enterprise (author: Yossi Sheffi)	Case studies in assessing risk of business disruption in a global context	www.barnesandnoble.com
Stratfor Global Intelligence	Geopolitical intelligence reports	www.stratfor.com
Control Risks	Geopolitical intelligence reports	www.controlrisks.com

Plans are nothing...
Planning is everything!

-- Dwight Eisenhower

All content contained within this document is considered proprietary and for client internal use only. This document and related content may not be shared with any third-party without the permission of an officer of Risk Masters, Inc.