

Rising Above the Seas: SECing Materiality Through the Corporate Lens

For those who have worked within any of the many facets of our diverse global economy on climate change sustainability and sustainable development, I'm sure you'll agree that it's been excitingly satisfying to bear witness in recent years as the corporate sector grapples with the realities of how businesses have been, are being, and will be impacted by climate change.

Business continuity is a familiar concept to corporations that has traditionally encompassed planning and preparation for disruptive incidents and disasters (e.g. fires, earthquakes, floods, etc.) to ensure businesses are protected and/or will recover to an operational state within a reasonable period of time. It's becoming more and more difficult to ignore climate risks due to the increased frequency of extreme weather events such as hurricanes, droughts, and the focus on this paper, sea level rise. It is sensible, therefore, to include climate risks in such planning and preparations.

The obvious examples of recent climate risks are the costly Hurricanes of the Gulf Coast – specifically, Katrina of 2005 – the historic Thailand floods of 2011 and Typhoon Haiyan of 2013, and Superstorm Sandy in the Northeast United States in 2012, all of which were intensified due to sea level rise. While these events were far from ideal occurrences, they may have served as instrumental enablers in many cases for building the business case for companies to redesign resiliency strategies and/or build such strategies from the ground up as new business operations are constructed.

While many agree that sea level rise is a definite risk to business continuity, the unfortunate reality is that the majority of corporate America has not yet prioritized the issue. Why is this the case? This paper will explore six challenges that are crosscutting for all sectors through a spotlight of S&P 500 Securities and Exchange Commission (SEC) 2014 Annual Filings:¹

1. **Reality and Realization:** It's a challenge to stay up-to-date with current scientific research, despite the fact that this research is building in relevancy and availability and tools are being manufactured to ease this effort.
2. **Finding Materiality:** It's a challenge to understand the implications of sea level rise across the entire value chain, despite the fact that it is increasingly important to manage both the upstream and downstream in addition to a company's own operations.
3. **Integration within the 21st Century Corporation:** It's a challenge for sustainability teams to successfully implement enterprise-wide sea level rise risk management platforms independently of

¹ Research was conducted utilizing the Ceres SEC Climate Search Tool: <http://www.ceres.org/resources/tools/sec-climate-disclosure/sec-climate-disclosure>

other business units, despite the fact that there are a plethora of business units that are impacted by sea level rise and who are thus integral in the process of developing business continuity plans.

4. **The Longer the Timeframe, the Longer the Wait:** It's a challenge to fight for internal attention on sea level rise over more near-term physical business continuity risks such as drought, hurricanes and precipitation changes, despite the significance of already occurred sea level rise in relation to extreme weather events and building scientific evidence.
5. **Geography can be Everything:** It's a challenge to have a one-size-fits-all approach for businesses with locations in multiple geographies, despite the fact that location managers have access to great local intelligence and authority.
6. **Definitions and Reporting are Self-Selected:** It's a challenge to report business' sea level rise risks and response strategies in annual SEC filings due to the unavailability of consistent and standardized guidelines and definitions for materiality across sectors, despite the proliferation of standards bodies working to develop these definitions (e.g. CDSB,ⁱⁱ SASB,ⁱⁱⁱ IIRC^{iv}) and voluntary disclosure mechanisms (e.g. CDP^v) where companies are currently reporting on these risks.

Reality and Realization

There's an ever-growing mound of scientific evidence on sea level rise, which is also building in certainty of incidence and becoming more localized. Staying aware of current and forthcoming scientific research is an ongoing exercise that can effectively inform business continuity plans and materiality assessments.

The most recent **UN Intergovernmental Panel on Climate Change (IPCC)** report estimates that by 2100, sea level will rise by about 1 to 3 feet (26 to 98 centimeters).^{vi} The **Potsdam Institute for Climate Impact Research's** projections for this century's sea level contribution from Antarctica melting are "significantly higher" than the upper-end IPCC projections. Bloomberg reported, "even in a scenario with ambitious climate policies to cap warming to 2 degrees Celsius (3.6 degrees Fahrenheit) since industrialization, the contribution of Antarctica to global sea level rise covers a range of 0 to 23 centimeters."^{vii, viii} Further, **NASA** reports that eventual loss of a major section of the West Antarctic Ice Sheet "appears unstoppable." It is estimated that the region contains enough ice to alone raise global sea levels by 4 feet (1.2 meters).^{ix}

In the context of the United States, co-chairs Michael R. Bloomberg, Henry Paulson, and Tom Steyer tasked the Rhodium Group with an independent analysis of the economic risks posed by climate change. The result was the report, **Risky Business: The Economic Risks of Climate Change to the United States**,^x which found that sea level rise is one of three most economically significant threats, specifically referencing "damage to coastal property and infrastructure from rising sea levels and increased storm surge." The report claims that

ii Climate Disclosure Standards Board (CDSB): <http://www.cdsb.net>

iii Sustainability Accounting Standards Board (SASB): <http://www.sasb.org>

iv International Integrated Reporting Council (IIRC): <http://www.theiirc.org>

v Carbon Disclosure Project (CDP): <http://www.cdp.net>

vi http://www.climatechange2013.org/images/report/WG1AR5_Chapter13_FINAL.pdf#page=4

vii <http://www.bloomberg.com/news/2014-08-13/antarctic-melt-may-lift-sea-level-faster-in-threat-to-megacities.html>

viii <http://www.earth-syst-dynam.net/5/271/2014/esd-5-271-2014.html>

ix <http://www.jpl.nasa.gov/news/news.php?release=2014-147>

x <http://riskybusiness.org/report/overview/executive-summary>

“if we continue on our current path, by 2050 between \$66 billion and \$106 billion worth of existing coastal property will likely be below sea level nationwide, with \$238 billion to \$507 billion worth of property below sea level by 2100.”

Company Example: Kinder Morgan – 2014 SEC Filing:

“Some climatic models indicate that global warming is likely to result in rising sea levels, increased intensity of hurricanes and tropical storms, and increased frequency of extreme precipitation and flooding. We may experience increased insurance premiums and deductibles, or a decrease in available coverage, for our assets in areas subject to severe weather. To the extent these phenomena occur, they could damage our physical assets, especially operations located in low-lying areas near coasts and river banks, and facilities situated in hurricane-prone regions. However, the timing and location of these climate change impacts is not known with any certainty and, in any event, these impacts are expected to manifest themselves over a long time horizon. Thus, we are not in a position to say whether the physical impacts of climate change pose a material risk to our business, financial position, results of operations or cash flows.” (p.20, item 1. Business)

Finding Materiality

Through a materiality assessment, companies within all sectors should explore their vulnerability to sea level rise, in their direct operations and/or at some point along the value chain. 2014 SEC corporate annual filings that mentioned sea level rise include companies in following sectors: Banks & Financial Services, Chemicals, Consumer Goods, Electric & Gas Utilities/Energy Incl. Coal, Electronics, Food & Agriculture, Hospitality & Tourism, Industrial Manufacturing/Materials, Information Technology, Insurance Services, Mining, Oil & Gas, Real Estate Finance/Property Development/Construction, Services, Transportation, Waste Management.^{xi}

Further, while impacts on direct operations may be better understood, coordination with procurement, communications and marketing teams is important to consider as sea level rise may impact a company’s ability to source and deliver products and services throughout the entire value chain of clients, suppliers and customers. As Philip Morris disclosed to CDP in 2013, “that rising sea levels could also leave people (farmers, manufacturing employees, and others) who live in low lying areas in danger of being flooded, resulting in people movement”^{xii} – employee engagement platforms can also benefit from better understanding sea level rise risks.

Company Example: KROGER CO – 2014 SEC Filing:

“The effect on the environment could be manifested by extreme weather conditions, such as more intense hurricanes, thunderstorms, tornadoes and snow or ice storms, as well as rising sea levels...A large number of our stores and distribution facilities are geographically located in areas that are susceptible to hurricanes, tornadoes, floods, droughts and earthquakes. Weather conditions and natural disasters could disrupt our operations at one or more of our facilities, interrupt the delivery of products to our stores, substantially increase the cost of products, including supplies and materials and substantially increase the cost of energy needed to operate our facilities or deliver products to our facilities. Adverse weather and natural disasters could materially affect our financial condition, results of operations, or cash flows.” (p.8-9, item 1a Risk Factors)

^{xi} Research was conducted utilizing the Ceres SEC Climate Search Tool: <http://www.ceres.org/resources/tools/sec-climate-disclosure/sec-climate-disclosure>

^{xii} <http://www.pmi.com/eng/sustainability/Documents/PMI%20CDP%20Climate%20Change%202013%20Submission.pdf#page=29>

Integration Within the 21st Century Corporation

Sustainability teams are capable of amounting great masses of intelligence on climate risk, however, they have limited ability to change corporate strategy, enterprise risk management and business continuity planning on their own due to small budgets and infrequent access to C-suite. The solution lies within establishing a dialogue and working relationship with colleagues in other departments, such as Enterprise Risk Management, Human Resources, Corporate Strategy, Facilities, Investor Relations, Legal, Procurement and also, of course, Finance (e.g. CFO). During a session on materiality at the BSR Conference 2011, Mary Capozzi (Senior Director, Corporate Responsibility) of Best Buy Co., Inc. highlighted how the “materiality assessment made it easier for us to get senior leadership on board because the focus areas highlighted in the assessment more closely aligned with who we are as a company.”^{xiii}

Eaton Corporation Climate Change Commitment:

“Managing Business Continuity Risks: Eaton has included the potential impacts of climate change in its ongoing analysis of potential business risks. For example, Eaton is enhancing its worldwide emergency response capabilities through the company’s Enterprise Risk Management system to identify and deal with physical risks such as increased storm activity, hurricanes, floods, etc.” (<http://www.eaton.com/Eaton/OurCompany/Sustainability/SustainablePractices/EnvironmentHealthSafety/ClimateChangeCommitment/index.htm>)

UNEP FI & WBCSD: Translating ESG into Sustainable Business Value:

“Company sustainability managers are crucial to bridging knowledge and expertise on the materiality of ESG factors with investor relations managers and senior management executives on the one hand, and investors on the other hand.” (<http://www.unepfi.org/fileadmin/documents/translatingESG.pdf>)

The Longer the Timeframe, the Longer the Wait

Sea level rise is a longer-term business continuity issue and as a result, prioritization is lent to more near-term, immediate and tangible “business continuity” risks. Financial figures help bring concepts like sea level rise out of theory and into reality. Unfortunately, due to the long timeframe of sea level rise, quantifying impacts in dollars and cents can be a guessing game, therefore making it a challenge to get necessary attention and resources from upper management.

Company Example: Cabot Oil & Gas – 2014 SEC Filing:

“Moreover, some experts believe climate change poses potential physical risks, including an increase in sea level and changes in weather conditions, such as an increase in changes in precipitation and extreme weather events. To the extent that such unfavorable weather conditions are exacerbated by global climate change or otherwise, our operations may be adversely affected to a greater degree than we have previously experienced, including increased delays and costs. However, the uncertain nature of changes in extreme weather events (such as increased frequency, duration, and severity) and the long period of time over which any changes would take place make any estimations of future financial risk to our operations caused by these potential physical risks of climate change unreliable.” (p.33, item 1a. Risk Factors)

^{xiii} <http://www.bsr.org/en/bsr-conference/session-summary-view/2011/the-value-of-a-materiality-assessment>

Geography Can Be Everything

It's important for businesses to consider where their operations are as not all locations have the same risk types or caliber of resiliency plan. As reported in **Risky Business: The Economic Risks of Climate Change to the United States**, property losses from sea level rise are concentrated in specific regions of the U.S., especially on the Southeast and Atlantic coasts, where the rise is higher and the losses far greater than the national average. There are a multitude of questions a company should ask itself, both in consideration of direct operations as well as the value chain, in this respect. Are the business units in coastal erosion and/or flood prone locations? Are operations domestic and/or international, and how aligned or misaligned are the various operating units across national and/or global operations?

Company Example: EMC Corporation – 2014 SEC Filing:

"Our business could be materially adversely affected as a result of ... natural disasters or climate change...Terrorist acts, acts of war, natural disasters, or the direct and indirect effects of climate change (such as sea level rise, increased storm severity, drought, flooding, wildfires, pandemics, and social unrest from resource depletion and rising food prices) may cause damage or disruption to our employees, facilities, customers, partners, suppliers, distributors and resellers, which could have a material adverse effect on our business, results of operations or financial condition." (p.25, item 1a. Risk Factors)

Company Example: DDR Corp. – 2014 SEC Filing:

"The Company's Properties Could Be Subject to Damage from Weather-Related Factors A number of the Company's properties are located in areas that are subject to natural disasters. Certain of the Company's properties are located in California and in other areas with higher risk of earthquakes. In addition, many of the Company's properties are located in coastal regions, including 15 properties located on the island of Puerto Rico as of February 14, 2014, and would therefore be affected by any future increases in sea levels or in the frequency or severity of hurricanes and tropical storms, whether such increases are caused by global climate changes or other factors". (p. 10, item 1a. Risk Factors)

Definitions and Reporting are Self-Selected

In fulfillment of fiduciary responsibility, investors turn to annual reports and stock exchange filings for details on what constitutes material risk to companies. Should investors review 2014 SEC annual filings, known as the 10-K, they would find that only 83 of 2,824 publicly listed companies included any mention of sea level rise in their 2014 SEC annual filings.^{xiv} This is likely due to an absence of consistent and standardized guidelines and definitions for materiality across sectors, which leads companies to self-define materiality and make independent determinations of what should be included in their SEC filings. In an effort to overcome this, mandatory filings and annual report initiatives (e.g. CDSB, IIRC, SASB) are working to establish standards and metrics for non-financial information (e.g. climate risk) that can be applied universally.

Company Example: AIG – 2014 SEC Filing:

"In addition, we are committed to providing innovative insurance products and services to help our clients be proactive against the threat of climate change, including expanding natural disaster resilience, promoting adaptation, and reducing greenhouse gas emissions. Our internal product development, underwriting, modeling, and sustainability practices will continue to adapt to and evolve with the developing risk exposures attributed to climate change. Our natural catastrophe exposure is primarily driven by the U.S. and Japan, though our overall exposure is diversified across multiple countries. For example, we have exposures to additional perils such as European windstorms and flood. Within the U.S., we have significant hurricane exposure in Florida, the Gulf of Mexico and the Northeast U.S. and mid-Atlantic regions." (p.46, Not Classified)

^{xiv} Results produced from the Ceres SEC Climate Search Tool

Mardi McBrien, Managing Director, Climate Disclosure Standards Board (CDSB):

“In financial reporting, information such as how businesses are impacted by sea level rise is material if its omission, misstatement or misinterpretation could influence the decisions that users make on the basis of an entity’s financial information. As materiality depends on the nature and amount of the item judged in the particular circumstances of its omission or misstatement, it is not possible to prescribe a test or standard to identify what is material in the context of climate change related disclosure. Determining whether information is material is a dynamic process that depends on the relevant conditions at the time and developments in sectors, countries, international markets, regulation and scientific findings. CDSB’s work however enables companies to be more consistent and transparent in reporting non-financial information, strengthening integration with financial information. We therefore believe applications of materiality should be aligned as closely as possible with financial definitions and applied to provide information on the specific practices and circumstances of disclosing organizations, allowing investors to see trends and significant events related to climate change that affect or have the potential to affect the company’s financial condition and/or its ability to achieve its strategy.”

Statement from the Sustainability Accounting Standards Board (SASB):

“The SEC published Guidance Regarding Disclosure Related to Climate Disclosure in February 2010. The guidance—which set expectations for companies to report on material regulatory, physical, and indirect risks and opportunities related to climate change—signaled the SEC’s acknowledgment of climate risk. SASB standards complement the SEC guidance by providing investors with climate risk metrics, including sea level rise and flooding, by which they can benchmark and gauge progress. These metrics differ at the industry level. For example, SASB’s climate-related metrics for the health care delivery industry include how companies manage risks to physical infrastructure that is located in low-lying and/or hurricane-prone areas, whereas SASB’s climate related metrics for companies in the commercial banking industry include how climate-change total loans to companies in industries that produce significant greenhouse gas emissions, such as Oil and Gas, Materials, Industrials, and Utilities. In addition to translating climate change into actionable, industry-specific metrics, SASB also identifies industries where climate change is material (either from an emissions or vulnerability perspective), so that portfolios can be addressed in terms of climate risk and opportunities associated with climate change.”



Stephen Donofrio

Stephen Donofrio, Principal & Founder of Greenpoint Innovations, offers more than 10 years of experience working with companies, communities, governments and not-for-profit organizations on ‘environmental social and governance’ (ESG) assessment, strategy and reporting; responsible investing; environmental markets; carbon finance; and sustainable development. Formerly Vice President of CDP North America (Carbon Disclosure Project), Stephen served as the Canada Manager and directed the region’s investor disclosure program for climate, energy, water, forest risk commodities, consisting of more than 700 US and Canadian publicly-held companies and more than 200 institutional investors. Stephen joined CDP from the Chicago Climate Exchange (CCX), where he administered the Offsets Program, managed member and partner accounts, and provided research and analysis of environmental markets, regulations/policies and programs. Prior to the CCX, he led business development, fundraising and market research for carbon project finance and clean technology companies CINCS LLC and Carbon Credit Capital LLC.

Association of Climate Change Officers

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1900 K Street NW • Washington, DC 20006 • 202-496-7390 • www.ACCOonline.org

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