

The Widening Scope of Directors' Duties: The Increasing Impact of Corporate Social and Environmental Responsibility

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INTRODUCTION: TRADITIONAL INTERPRETATIONS AND NEW REALITIES OF DIRECTORS' DUTIES

This Article concerns the widening scope of directors' duties under the increasing impact of the pressures for corporate social and environmental responsibility. Narrow interpretations of directors' duties that focus simply on the commercial success of the business and relegate other considerations to externalities are not tenable in the present context. The dawning realization of the global consequences of imminent climate change provides a series of inescapable challenges for business enterprises.

Responding to these climate challenges involves the exploration and development of new paradigms of directors' duties. A series of international institutional initiatives are inspiring, facilitating, and guiding the progress of companies towards new conceptualizations of directors' duties and responsibilities. These are increasingly reinforced by market indices which recognize and measure the performance of companies according to social and environmental criteria. This effort is endorsed by a wide array of business and civil society bodies that are researching and disseminating knowledge and practical analytical skills regarding sustainability. This amounts to a changing landscape for the definition and practice of fiduciary duty where risk, strategy, and investment are closely calibrated with social and environmental responsibility.

First, the Article will consider the imminent global consequences of climate change and the implications for businesses, economies, and societies. In this context of clear and present global risk, the transformation to new paradigms of directors' duties is examined. This includes an examination of the consequences for directors' roles in combating climate

* Please insert author footnote.

change by mitigation and adaptation and the building of sustainable enterprises. The Article then considers the multiplicity of international initiatives for greater corporate social and environmental responsibility, the business and civil society agencies pressing for sustainable business development, and the market indices, which now measure corporate performance in sustainability and inform investors. Finally, the changing landscape of fiduciary duty is highlighted with new boundaries for risk, strategy, and investment.

I. THE GLOBAL CONSEQUENCE OF CLIMATE CHANGE

The phenomenon of climate change is gradually becoming part of the discourse of daily life. This is not the discussion of the weather, which has proved an eternal focus of human interest since the birth of civilization. This is *anthropogenic* climate change—that is, what *we* did to the earth’s climate (and what consequences this will have). According to the United Nations Framework Convention on Climate Change (UNFCCC), 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.”¹ Climate change is caused by the increased emission of carbon dioxide and other greenhouse gases, which accumulate in the atmosphere and prevent heat from radiating into space. The consequences of climate change range from gradual to a catastrophic impact on the environment, ecology, economy and society.² In 1988, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) to provide the world community with the most up-to-date and comprehensive scientific, technical, and socioeconomic information about climate change. The IPCC assessments have played a major role in motivating governments to adopt and implement policies in responding to climate change, including

1. United Nations Framework Convention on Climate Change, art. 1, *opened for signature* May 29, 1992, 1771 U.N.T.S. 107 (entered into force Mar. 24, 1994) [hereinafter UNFCCC]; *see also* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS 1450 (2013) [hereinafter IPCC CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS], *available at* https://www.ipcc.ch/pdf/assessment-report/ar5/wg1/WG1AR5_ALL_FINAL.pdf; INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 30 (2007), *available at* https://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr_full_report.pdf.

2. IPCC CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS, *supra* note 1.

the United Nations Framework Convention on Climate Change and the Kyoto Protocol.³

The IPCC issued a risk assessment report on March 31, 2014, stating that the effects of climate change are already occurring on all continents and across the oceans. A very large international team of scientists prepared this assessment; the team included 179 lead authors, 66 review editors, 436 contributing authors, and 1,729 individual expert reviewers from 84 countries.⁴ The world is unprepared for the imminent risks of a changing climate, and while there are opportunities to respond to such risks, they will be very difficult to manage with high levels of warming.⁵ The report suggests that, though the nature of the risks are becoming increasingly clear, climate change will continue to produce unpleasant surprises. Vulnerable people, industries, and ecosystems around the world are identified in the report. The report finds that risk from a changing climate is due to vulnerability (lack of preparedness) and exposure (people and assets in harm's way), overlapping with increasing hazards (the sudden triggering of climate events or trends). Intelligent intervention to decrease risk in each of these three dilemmas is possible. Vicente Barros, the co-chair of the group of scientists who produced the report commented:

We live in an era of man-made climate change. In many cases we are not prepared for the climate-related risks that we already face. Investments in better preparations can pay dividends both for the present and for the future. . . . Part of the reason adaptation is so important is that the world faces a host of risks from climate change already baked into the climate system, due to past emissions and existing infrastructure.⁶

There is a growing consensus that what we have witnessed since the 1950s with respect to climate change is without precedent in recent millennia. One example is the Northern Hemisphere, where the last thirty years have been the warmest since Anglo-Saxon times, and eight of the ten warmest years on record in the United Kingdom have been since

3. See, e.g., INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY (2014) [hereinafter IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY], available at https://www.ipcc.ch/pdf/assessment-report/ar5/wg2/ar5_wgII_spm_en.pdf.

4. Press Release, Intergovernmental Panel on Climate Change, IPCC Report: A Changing Climate Creates Pervasive Risks but Opportunities Exist for Effective Responses (Mar. 31, 2014) [hereinafter IPCC Press Release], available at https://www.ipcc.ch/pdf/ar5/pr_wg2/140330_pr_wgII_spm_en.pdf.

5. IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, *supra* note 3.

6. IPCC Press Release, *supra* note 4, at 1–2.

2002.⁷ Other examples include the atmospheric concentration of greenhouse gases, which are now at levels not seen in 800,000 years,⁸ and the rate of sea level rise, which is now quicker than at any time over the last two millennia.⁹ And, though natural fluctuations may mask the impact temporarily, the underlying human-induced warming trend of two-tenths of a degree per decade has continued since the 1970s.¹⁰

In response to these impending threats, members of the 2010 UN Climate Change Conference in Cancun, Mexico, agreed to reduce greenhouse gas emissions and help developing nations to protect themselves from climate impacts and build their own sustainable futures.¹¹ Under the Climate Change Convention, members included a review for nations on their progress towards the agreed objective of keeping the average global temperature rise below two degrees Celsius (with an agreement to review this objective in the future on the basis of further scientific knowledge). The explanation for the two degrees maximum increase is that, beyond this point, climate change may become nonlinear; that is, unpredictable and compounding catastrophic weather events could occur.¹²

Climate change refers to “a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer.”¹³ The UNFCCC makes the significant distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.¹⁴ The 2014 IPCC report assesses the risks climate change poses for human and natural systems, considers how these risks may be reduced or managed through adaptation and mitigation, and examines the options, constraints, resilience, and limits of adaptation.¹⁵ This assessment is difficult because climate change involves complex interactions and changing likelihoods of the many and diverse impacts.

7. *2014 Confirmed as UK's Warmest Year on Record*, MET OFFICE (Jan. 5, 2015), <http://www.metoffice.gov.uk/news/releases/archive/2015/Record-UK-temps-2014>.

8. IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, *supra* note 3.

9. *Id.*

10. See Friederike E.L. Otto, *Climate Change: Attribution of Extreme Weather*, 8 NATURE GEOSCIENCE 581 (2015).

11. UNFCCC, *supra* note 1.

12. *The Cancun Agreements*, UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE, <http://cancun.unfccc.int/cancun-agreements/significance-of-the-key-agreements-reached-at-cancun/> (last visited Nov. 21, 2015).

13. IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, *supra* note 3, at 5.

14. UNFCCC, *supra* note 1.

15. IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, *supra* note 3.

The focus on risk supports decisionmaking in the context of climate change; it allows society, government, and business to perceive the degree of risk and consider modes of mitigation or adaptation with reference to impacts, vulnerability, and exposure.

There is significant evidence of serious impacts on natural and human systems on all continents and across all oceans. However, the impact is strongest and most comprehensive for natural systems. Changing precipitation levels affect water resources and thawing permafrost, and many terrestrial, freshwater, and marine species shift their geographic range and migration patterns in response to climate change.¹⁶ People who are economically or socially marginalized are especially vulnerable to the impact of climate change. The widespread impact of recent climate-related extremes such as heat waves, droughts, floods, cyclones, and wildfires reveals vulnerability and exposure of both ecosystems and human systems to current climate variability.¹⁷ Governments throughout the world are already extensively engaged in developing adaptation policies, for example, in coastal and water management, environmental protection, land planning, protecting infrastructure, disaster management, and reforestation. In these complex situations, iterative risk management is required to deal with continuing uncertainty and constant monitoring of impacts.¹⁸

16. *Id.*

17. *Id.* at 6.

18. *Id.* at 8.

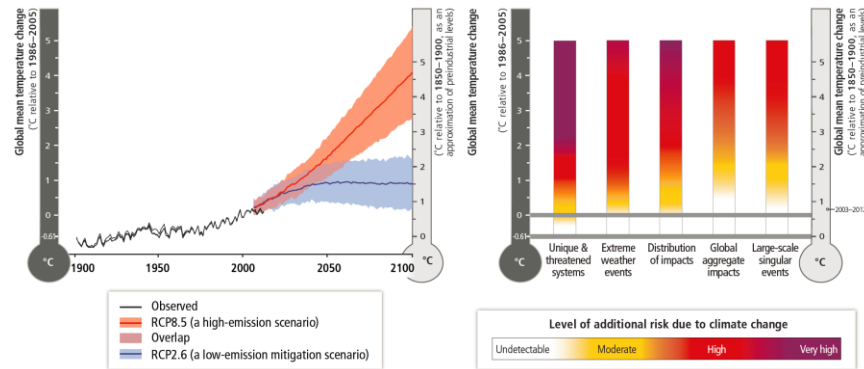


Figure 1: A Global Perspective on Climate Related Risks¹⁹

(Risks associated with reasons for concern are shown at right for increasing levels of climate change. The color shading indicates the additional risk due to climate change when a temperature level is reached and then sustained or exceeded. *Undetectable* risk indicates that no associated impacts are detectable and attributable to climate change. *Moderate* risk indicates that associated impacts are both detectable and attributable to climate change with at least medium confidence, also accounting for the other specific criteria for key risks. *High* risk indicates severe and widespread impacts, also accounting for the other specific criteria for key risks. *Very high* risk, introduced in this assessment, is indicated by all specific criteria for key risks. For reference, past and projected global annual average surface temperature is shown at left. Based on the longest global surface temperature dataset available, the observed change between the average of the period 1850–1900 and of the reference period (1986–2005) is 0.61°C (5–95% confidence interval: 0.55–0.67°C), which is used here as an approximation of the change in global mean surface temperature since preindustrial times, referred to as the period before 1750).

The IPCC report provides an integrative framework for summarizing risks for people, economies, and ecosystems resulting from anthropogenic (man-made) interference with the climate *system*, which is highlighted in Figure 1:

1. *Unique and threatened systems* include ecosystems and culture systems already at risk from climate change and in danger of

¹⁹ *Id.* at 13.

severe consequences with additional warming of around 1°C, and many other species and systems with limited adaptive capacity subject to high risk with additional warming of 2°C, such as Arctic Sea ice and coral-reef systems.

2. *Extreme weather events* include already occurring heat waves, extreme precipitation, and coastal flooding, which will increase with 1°C additional warming with extreme events such as extreme heat increasing at higher temperatures.
3. *Distribution of impacts* involves uneven distribution towards disadvantaged people and communities in countries at all levels of development based on crop yields and water availability, which further impacts at higher temperatures.
4. *Global aggregate impacts* involve effects on the Earth's biodiversity and the global economy, with increasing losses of ecosystem goods and services at around 3°C additional warming.
5. *Large-scale singular events* as some physical systems or ecosystems are at risk of abrupt and irreversible damage, with tipping points occurring at 0–1°C, as indicated by early warning signs from both warm-water coral reef and Arctic ecosystems already experiencing irreversible regime shifts.²⁰

With these integrated and compounding risks included in the IPCC framework, the following specific key risks of climate change are identified:

1. Risk of death, injury, ill-health, or disrupted livelihoods due to storm surges, coastal flooding, and sea level rise.
2. Risk of severe ill-health and disrupted livelihoods for large urban populations due to inland flooding in some regions.
3. Systemic risks due to extreme weather events leading to breakdown of infrastructure networks and critical services such as electricity, water supply, and health and emergency services.
4. Risk of mortality and morbidity during periods of extreme heat, particularly for vulnerable urban populations and those working outdoors in urban or rural areas.
5. Risk of food insecurity and the breakdown of food systems linked to warming, drought, flooding, and precipitation variability and extremes, particularly for poorer populations in urban and rural settings.

20. *Id.* at 12.

6. Risk of loss of rural livelihoods and income due to insufficient access to drinking and irrigation water, and reduced agricultural productivity, particularly for farmers and pastoralists with minimal capital in semi-arid regions.
7. Risk of loss of marine and coastal ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for coastal livelihoods, especially for fishing communities in the tropics and in the Arctic.
8. Risk of loss of terrestrial and inland water ecosystems, biodiversity, and the ecosystem goods, functions, and services they provide for livelihoods.²¹

While this array of impending environmental, ecological, economic, and social risks are daunting for the whole of humanity, the IPCC concludes that those with the least resources to protect themselves will bear the burden of these risks: “Many key risks constitute particular challenges for the least developed countries and vulnerable communities, given their limited ability to cope.”²²

In his earlier review on *The Economics of Climate Change*, Sir Nicholas Stern called climate change “*the greatest market failure the world has ever seen.*”²³ He insisted that the choice we faced was taking mitigation action now or very expensive adaptation in the future, and he concluded that “[t]here is still time to avoid the worst impacts of climate change, if we take strong action now.”²⁴ Stern insisted:

The scientific evidence that climate change is a serious and urgent issue is now compelling. It warrants strong action to reduce greenhouse gas emissions around the world to reduce the risk of very damaging and potentially irreversible impacts on ecosystems, societies and economies. With good policies the costs of action need not be prohibitive and would be much smaller than the damage averted.²⁵

Stern highlighted how the effects of climate change are global, intertemporal, and highly inequitable. Climate change is a result of the externality associated with greenhouse gas emissions entailing costs that are not paid for by those who create the emissions. Stern distinguishes a

21. *Id.*

22. *Id.* at 13.

23. NICHOLAS STERN, STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE viii (2006) (emphasis added), available at http://mudancasclimaticas.cptec.inpe.br/~rmclima/pdfs/destaques/sternreview_report_complete.pdf.

24. *Id.* at vi.

25. *Id.* at iv.

number of features of climate change that together distinguish it from other externalities: it is global in its causes and consequences; the impacts are long-term and persistent; uncertainties and risks in the economic impacts are pervasive; and there is a serious risk of major, irreversible change with nonmarginal economic effects.²⁶

The publications of the IPCC, Stern Review, and countless other international agencies, market intermediaries, business and civil society bodies, and national and legal authorities have helped the business world recognize the dramatic environmental consequences of unrestrained industrial activity and how little time there is to put this right. What this scenario suggests is not business as usual. The traditional conception of corporations maximizing profit and leaving others to worry about the externalities they create simply does not work in a context of the impending consequences of climate change. In this context, government, business, and the wider community have to engage in the immediate and urgent stewardship and recovery of the environment. Business corporations will respond—or shareholders, stakeholders, and governments will make them respond—to the demand that they act with greater responsibility in their use of resources and impact on the community and environment.

This is a paradigm shift as dramatic as any that has been applied to Thomas Kuhn's *Structure of Scientific Revolutions*. We have to "begin the extraordinary investigations that lead the profession at last to a new set of commitments, a new basis for the practice of science."²⁷ Kuhn explains that "[t]he extraordinary episodes in which that shift of professional commitments occurs are the ones known . . . as scientific revolutions. They are the tradition-shattering complements to the tradition-bound activity of normal science."²⁸ This paradigm shift, impelled by the real and imminent danger of climate change, includes a fundamental widening and deepening of the traditional conception of professional directors' duties.

II. NEW PARADIGMS OF DIRECTORS' DUTIES

Climate change throws up many confronting challenges to corporations and the law, which are presently the subject of intense debate.²⁹ The

26. *Id.* at 23.

27. THOMAS S. KUHN, *THE STRUCTURE OF SCIENTIFIC REVOLUTIONS* 7 (3d ed. 1996).

28. *Id.*

29. See BEN CALDECOTT, GERARD DERICKS & JAMES MITCHELL, *STRANDED ASSETS AND SUBCRITICAL COAL: THE RISK TO COMPANIES AND INVESTORS* (2015); CARBON DISCLOSURE PROJECT, *CLIMATE ACTION AND PROFITABILITY: CDP S&P 500 CLIMATE CHANGE REPORT* (2014); INT'L ENERGY AGENCY, *REDRAWING THE ENERGY-CLIMATE MAP: WORLD ENERGY OUTLOOK SPECIAL REPORT* (2013); KATHERINE RICHARDSON, WILL STEFFEN & DIANA LIVERMAN, *CLIMATE*

Final Report of the 2015 American Bar Association (ABA) Task Force on Sustainable Development described the scale of the challenge in achieving sustainability:

Sustainability is a framework for decision-making based on promotion of environmental protection, social justice, and economic/financial responsibility at the same time, with the overall objective of promoting human well-being for present and future generations. . . . Sustainability is intended to address two significant and related problems—widespread environmental degradation, including climate disruption, and large-scale extreme poverty. The root causes of these problems, in turn, are understood to be unsustainable patterns of production and consumption as well as a very large and still growing population.³⁰

An ABA resolution in 2003 made clear that sustainability issues involved all lawyers, not just environmental lawyers:

Applying sustainable development from a legal perspective means understanding, developing, and applying legal mechanisms that are relevant to the complex relationships among economic, social, and environmental priorities. This suggests a cross-functional approach . . . that integrates a variety of legal specialties, including environmental, labor, property, tax, corporate, finance, international trade, and risk management.³¹

CHANGE: GLOBAL RISKS, CHALLENGES AND DECISIONS (2011); UNITED NATIONS ENV'T PROGRAMME, TOWARDS A GREEN ECONOMY: PATHWAYS TO SUSTAINABLE DEVELOPMENT AND POVERTY ERADICATION (2011), available at http://www.unep.org/greeneconomy/Portals/88/documents/ger/GER_synthesis_en.pdf; UNITED NATIONS GLOBAL COMPACT, UNITED NATIONS ENV'T PROGRAMME, OXFAM & WORLD RES. INST., ADAPTING FOR A GREEN ECONOMY: COMPANIES, COMMUNITIES AND CLIMATE CHANGE (2011), available at http://pdf.wri.org/adapting_for_a_green_economy.pdf; Robin Kundis Craig, "Stationarity Is Dead"—Long Live Transformation: Five Principles for Climate Change Adaptation Law, 34 HARV. ENVTL. L. REV. 9 (2010); Robin Kundis Craig & Melinda Harm Benson, *Replacing Sustainability*, 46 AKRON L. REV. 841 (2013); Liam Phelan, *Managing Climate Risk: Extreme Weather Events and the Future of Insurance in a Climate-Changed World*, 18 AUSTRALASIAN J. ENVTL. MGMT. 4 (2011); Shardul Agrawala et al., *Private Sector Engagement in Adaptation to Climate Change: Approaches to Managing Climate Risks*, (Org. for Econ. Co-operative and Dev., Environment Working Paper No. 39, 2013); *Expect the Unexpected: Building Business Value in a Changing World*, KPMG INT'L (2012), <https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/building-business-value.pdf>.

30. Memorandum from Lee A. DeHihns, III to William C. Hubbard and Alpha M. Brady on Task Force Final Report 1 (July 30, 2015), available at http://www.americanbar.org/content/dam/aba/administrative/environment_energy_resources/resources/final_sdtf_aba_annual_08-2015.auth_checkdam.pdf.

31. *Id.* at 5.

In a remarkable speech to Lloyd's of London, Mark Carney, the Governor of the Bank of England and Chairman of the Financial Stability Board,³² highlighted that a classical problem of environmental economics is the “tragedy of the commons”—the despoliation of common property through over-use. He noted, however, that because the catastrophic impact of climate change is beyond the traditional horizon of most actors, it is also a “tragedy of the horizon”—it is imposed as a cost on future generations because the current generation has little direct incentive to fix it.³³ That is, the intervention to repair climate change is beyond the usual business cycle, political cycle, or horizon of regulators and other authorities.³⁴ The tragic paradox is that by the time climate change is considered a defining issue within the normal business and political cycle, it will be too late to repair, except at enormous cost.

Attempting to calculate the potential future costs involved, the G20 Finance Ministers asked the Financial Stability Board to consider how the financial sector could take account of the risks climate change posed for the financial system. Carney identifies three channels through which climate change has an impact on financial stability:

- *Physical risks*: This includes today's impact on insurance liabilities and the value of financial assets arising from climate related events such as floods and storms that damage property and disrupt trade.
- *Liability risks*: This includes impacts that could arise if parties suffering loss or damage from the effects of climate change seek compensation from those they hold responsible. These claims could come decades into the future and could potentially hit carbon resources companies and emitters hard. If the companies have liability coverage, the claims would hit their insurers the hardest.
- *Transition risks*: This includes the financial risks resulting from adjustments towards a low carbon economy as changes in policy, technology, and physical risks prompt a reassessment of large-range asset values when costs and opportunities become apparent.³⁵

32. Mark Carney, Governor, Bank of England, Breaking the Tragedy of the Horizon—Climate Change and Financial Stability (Sept. 29, 2015), available at <http://www.bankofengland.co.uk/publications/Documents/speeches/2015/speech844.pdf>.

33. *Id.* at 4.

34. *The Economics of Climate Change in the United States*, RISKY BUS., <http://riskybusiness.org/> (last visited Dec. 21, 2015).

35. Carney, *supra* note 32, at 6.

These risks can be minimized by an early and predictable transition path that anticipates the consequences for a world two degrees warmer, or alternatively, these risks can be maximized by waiting for the consequences to occur and allow *jump-to-distress* pricing to ruin businesses.³⁶ Since the 1980s, the number of weather-related loss events has tripled for the insurance industry and the inflation-adjusted insurance losses have increased from an annual average of around \$10 billion in the 1980s, to around \$50 billion over the past decade.³⁷

Corporations have a central role to play in the two main strategies for combating climate change by mitigation and adaptation. Diminishing the potentially catastrophic consequences of the increasing impact of climate change will require urgent efforts to reduce carbon emissions. Corporations are required to make a major contribution to emissions mitigation, and if they refuse to do so they will face reputational damage, higher energy costs, legal costs, and fines from increasingly rigorous emissions regulations. More critically, they may find it increasingly difficult to transfer the risk they encounter through insurance, and also discover they are being deserted by investors and credit providers concerned at the exposure to emissions intensive sectors, stranded assets, and declining industries.³⁸ Equally, corporations will be fully engaged in the efforts at adaptation to climate change involving actions to moderate the harm of climate change, or to pursue opportunities to ameliorate the harmful effects of climate change. While the primacy of the effort to mitigate climate change is indisputable, the fact that past emissions will determine a certain degree of climate change makes adaptation necessary. Corporations that prove incapable of adaptation to the physical impact of climate change will be vulnerable to interruptions in their business operations and supply chain, resulting in potential damage to plant and infrastructure, and a scarcity of water and other raw materials. The two corporate strategies of mitigation and adaptation are connected, since significant emissions mitigation is necessary to achieve effective adaptation by

36. *Id.*

37. See BANK OF ENG., THE IMPACT OF CLIMATE CHANGE ON THE UK INSURANCE SECTOR (2015), available at <http://www.bankofengland.co.uk/prd/Documents/supervision/activities/pradefra0915.pdf>; *Significant Natural Disasters Since 1980*, MUNICH RE, <http://www.munichre.com/en/reinsurance/business/non-life/natcatservice/significant-natural-catastrophes/index.html> (last visited Dec. 21, 2015).

38. Sarah Barker, *Directors' Duties in the Anthropocene – Liability for Corporate Harm Due to Inaction on Climate Change* 9 (Corporate Law, Econ., and Sci. Ass'n, Dec. 2013), <http://www.clesa.net.au/blog/2015/1/14/directors-duties-in-the-anthropocene-liability-for-corporate-harm-due-to-inaction-on-climate-change>.

minimizing vulnerability to environmental shocks and enhancing resilience.³⁹

We have clearly passed the stage where government is regarded as being solely responsible for mitigation and adaptation relating to climate change. The hazards associated with climate change are both considerable and pervasive, and are characterized by their complexity and interconnectedness. The dramatic climactic discontinuities caused by climate change “may give rise to cascading risks of potentially unforeseeable magnitude.”⁴⁰ Therefore, climate change cannot be framed as one of technical risk management for governments and specialists; it is the responsibility of everyone, but particularly those in leadership positions in organizations that have a significant environmental impact:

[A]lthough risk management is a responsibility of corporations and government agencies which carry out risk assessments as part of their legal and actuarial responsibilities, it now seems to be required of *all* actors—as risk is shifted from collective institutions and specialised systems to individuals. Faced with systemic and pervasive risk, the individual must plan and measure contingencies and adopt ‘actuarial rationality.’⁴¹

As Godden et al. argue:

[C]limate change adaptation measures require a more sophisticated model of legal, regulatory and governance structures in order to develop effective responses.

....

Adaptation to climate change, therefore, must negotiate the need for heightened complexity in governance, but also seek to deconstruct conventional simplifying mechanisms such as clear boundaries between public and private spheres. Embracing such complexity is not always palatable, but re-invoking simplifying assumptions about appropriate legal and institutional forms may be detrimental if robust governance for climate risk adaptation is the overarching objective.⁴²

How climate change impacts the interpretation of directors' duties is now being examined. As Barker elucidates, international lawmakers

39. *Id.* at 10.

40. Lee Godden, Francine Rochford, Jacqueline Peel, Lisa Caripis & Rachel Carter, *Law, Governance and Risk: Deconstructing the Public-Private Divide in Climate Change Adaptation*, 36 UNSW L.J. 224, 235 (2013).

41. *Id.* at 238.

42. *Id.* at 241, 255.

have thus far concentrated upon taxing emissions, protecting the environment with emissions standards and disclosures, and planning.⁴³ In the areas of planning and environmental protection, litigation has mainly occurred over high-emitting projects or vulnerable environments. The law has recognized the impact of anthropogenic climate change and the risks of a failure to mitigate emissions and a failure to adapt to its consequences.⁴⁴ Barker concludes that, at this stage, the question of liability for climate change has revolved around mitigation and its cost, while the issue of damage caused by climate change impacts remains at an embryonic stage: “Plaintiffs have found *duty* and *causation* (or, in a climate change context, ‘*attribution*’) to be near ‘insurmountable’ evidentiary hurdles. This is primarily due to the disconnect between the *global* nature of emissions and their collective, cumulative effect, versus the *localised* nature of their impacts.”⁴⁵

While international agencies remain silent on the question of the implications for directors’ duties regarding climate change, this reserve is unlikely to continue. The gathering scale of the international, market, national, and business and civil society campaign for corporate social and environmental responsibility presents an irresistible challenge to corporations and directors to rethink their mission in the direction of sustainability. The ABA contends:

Corporate sustainability efforts in particular have been growing in scope and intensity over the past few years. In translating the broad objectives of sustainability into specific practices, businesses are guided to a growing degree by private systems of governance. These include sustainability-related codes of organizational behavior, including the CERES (Coalition for Environmentally Responsible Economies) Principles, the UN Global Compact, the UN Guiding Principles on Business and Human Rights, the Global Reporting Initiative standards on sustainability reporting, and the International Chamber of Commerce’s Charter for Sustainable Development.⁴⁶

43. Barker, *supra* note 38, at 10.

44. CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE 67 (Richard Lord, Silke Goldberg, Lavanya Rajamani & Jutta Brunnee eds., 2012); Robert Agnew, *It’s the End of the World as We Know It: The Advance of Climate Change from a Criminological Perspective*, in CLIMATE CHANGE FROM A CRIMINOLOGICAL PERSPECTIVE (Rob White ed., 2012); Jan McDonald, *The Role of Law in Adapting to Climate Change*, 2 WILEY INTERDISCIPLINARY REVIEWS: CLIMATE CHANGE 283 (2011); Barker, *supra* note 38, at 10; Jacqueline Peel, *Issues in Climate Change Litigation*, 5 CARBON & CLIMATE L. REV. 1, 15 (2011); Jacqueline Peel & Hari M. Osofsky, *Climate Change Litigation’s Regulatory Pathways: A Comparative Analysis of the United States and Australia*, 35 LAW & POL’Y 150 (2013).

45. Barker, *supra* note 38, at 11–12.

46. Memorandum from Lee A. DeHihns, III, *supra* note 30, at 3.

There are hundreds of policy initiatives led by institutions across the world. Existing initiatives vary in their *statuses*, from laws to voluntary guidance, from the United Nations to government, and through to civil society; in their *scopes*, from limiting greenhouse gas emissions to tackling broader environmental risks; and in their *ambitions*, from demanding simple disclosure to full explanations of mitigation and divestment strategies. These institutional initiatives have increasing influence and authority as the science and policy base that supports them becomes more profound. In aggregate, over 90% of FTSE 100 firms and 80% of Fortune Global 500 firms participate in these various initiatives.⁴⁷

In the past, corporate objectives described as “wealth generating” too frequently have resulted in the loss of well-being to communities and ecology. But, increasingly in the future, the *license to operate* will not be given so readily to corporations and other entities. A license to operate will depend on maintaining the highest standards of integrity and practice in corporate behavior. Corporate governance will essentially involve a sustained and responsible monitoring of not just the financial health of the company, but also the social and environmental impact of the company. As the ABA states, “legal tools, the legal profession, and the rule of law can make important contributions and are an integral component of efforts to achieve sustainability, especially by promoting good governance.”⁴⁸

47. Carney, *supra* note 32, at 14.

48. Memorandum from Lee A. DeHihns, III, *supra* note 30, at 2.

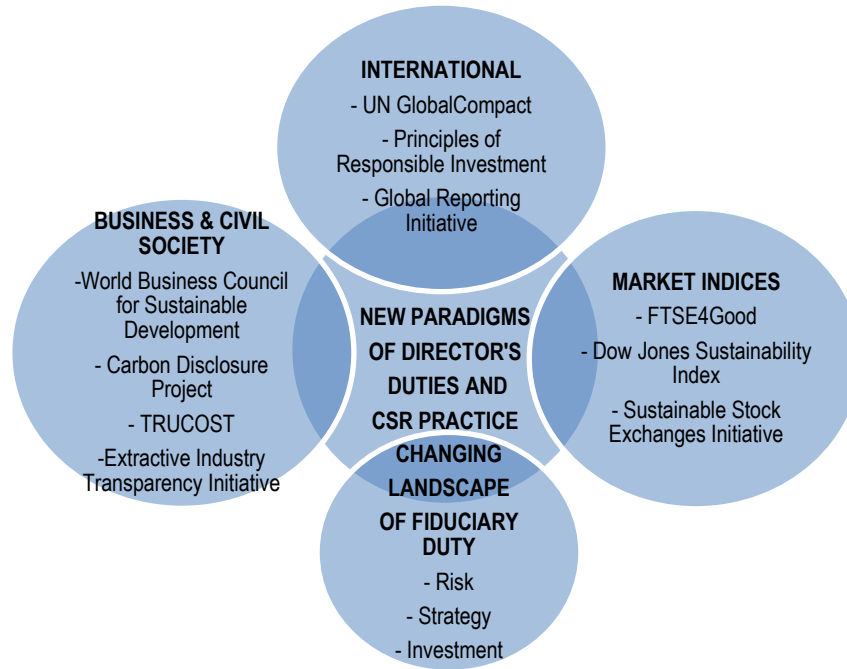


Figure 2: The Widening Scope of Director's Duties:
The Increasing Impact of Social and Environmental Responsibility

As the ABA recognizes, we are now engaging in a profound process of institutional transformation around the imperatives of sustainability. This transformation may be understood in terms of Fligstein and McAdam's *A Theory of Fields*, which conceives how the commitment of skilled people may upset established routines and build new political and organizational fields.⁴⁹ The core of their analysis examines how people deploy resources, build relationships, and forge new practices. In doing this, Fligstein and McAdam place *agency* in a new and more visible light. Perhaps never in the history of human civilization has the world faced a more consuming challenge than climate change, or more terrible consequences if a sustainable solution is not achieved. Yet, the field of sustainability has assembled the most remarkable constellation of talents and ideals stretching from engineers and life scientists, through community activists and institutional entrepreneurs, to lawyers, company directors, and politicians. Tackling the greatest problem of humanity, and some of the most deep-seated corporate interests in business-as-usual, is

49. See NEIL FLIGSTEIN & DOUG MCADAM, *A THEORY OF FIELDS* (2012).

an array of individuals and institutions with a vision of a sustainable future. The contest will continue for many decades to come, and the outcome will determine the future of human civilization as well as planetary sustainability.

However, the goal of a sustainable enterprise that exists integrally with the natural environment is both possible and necessary: business strategies can be redirected to serve the natural environment rather than to destroy it. Table 1 projects a transition to a sustainable economy on which we have already embarked.⁵⁰ For many decades, industry has been subjected to environmental laws that have limited emissions and waste. This has enlightened enterprises that have engaged in a spirit of continuous improvement, with the benefit of lowering costs. Those businesses that have transgressed the law have faced prosecution—in the past, with penalties that did not discourage further pollution, but today, with more adverse consequences including abandonment by investors who are afraid of the risks involved. In more recent times, a sense of product stewardship has developed largely with the motivation of minimizing the life-cycle cost of products, but with significant residual environmental benefits.

Finally, we are entering an era of sustainable enterprise where minimizing and eliminating the environmental impact of firm growth is becoming established as a key objective and is being integrated into firms' operations. New business models forming in the circular and sharing economies are enabling transitions to sustainable business practices, addressing resource depletion, waste management, and resource stewardship models that go beyond the traditional life-cycle requiring collaborative governance structures, new partnership arrangements, and networks between and across sectors. New technologies may transform the management of the traditional linear economy towards a circular economy, in which waste is effectively eliminated, and the economy is restorative rather than depletive of ecosystems.⁵¹ The European Commission has

50. See, e.g., Stuart L. Hart, *A Natural-Resource-Based View of the Firm*, 20 ACAD. MGMT. REV. 986 (1995). See generally Sandra Rapacioli et al., *Accounting for Natural Capital: The Elephant in the Boardroom*, CHARTERED INST. MGMT. ACCOUNTANTS 1, 6–7 (May 2014), http://www.cimaglobal.com/Documents/Thought_leadership_docs/Sustainability%20and%20Climate%20Change/CIMA-accounting-for-natural-capital.pdf; *Natural Capital at Risk: The Top 100 Externalities of Business*, TRUCOST (Apr. 15, 2013) [hereinafter *Natural Capital at Risk*], http://www.longfinance.net/images/PDF/trucost_naturalcapital_2013.pdf.

51. WORLD ECON. FORUM, TOWARDS THE CIRCULAR ECONOMY: ACCELERATING THE SCALE-UP ACROSS GLOBAL SUPPLY CHAINS (2014), available at http://www3.weforum.org/docs/WEF_ENV_TowardsCircularEconomy_Report_2014.pdf; *About the Circular Economy*, CIRCLE ECON., <http://www.circle-economy.com/circular-economy/> (last visited Oct. 15, 2015); *Moving Towards a Circular Economy*, EUROPEAN COMM'N, <http://ec.europa.eu/environment/>

been developing a Circular Economy Strategy for some time: “The circular economy requires action at all stages of the life cycle of products: from the extraction of raw materials, through material and product design, production, distribution and consumption of goods, repair, remanufacturing and re-use schemes, to waste management and recycling.”⁵²

Strategic Capability	Environmental Driver	Key Resource	Business Advantage
Pollution Prevention (1900s-1980s)	Minimize emissions, effluents and waste	Continuous improvement	Lower costs
Product Stewardship (1980s-2000s)	Minimize life-cycle cost of products	Stakeholder integration	Pre-empt competitors
Sustainable Development (2000s-2060s)	Minimize and eliminate environmental burden of firm growth	Shared vision Circular economy	Future Position

Table 1: A Natural Resource-Based View of the Firm⁵³

It is clear though that the pace of change towards a sustainable economy will only continue to accelerate if there is significant, insistent, and sustained pressure upon business to contribute to this goal from all stakeholders. Coalitions of institutions have sponsored initiatives for corporate

circular-economy/index_en.htm (last visited Oct. 15, 2015).

52. EUROPEAN COMM'N, CIRCULAR ECONOMY STRATEGY 3 (2015), available at http://ec.europa.eu/smart-regulation/impact/planned_ia/docs/2015_env_065_env+_032_circular_economy_en.pdf.

53. Adapted from Hart (1995).

responsibility that have driven collaborative business action for responsible business practices.⁵⁴

The remainder of this Article surveys the vast institutional development internationally around the theme of corporate social and environmental responsibility and sustainability. It also examines this institutional development from *A Theory of Fields* perspective, identifying a selection of the leading institutional initiatives, the objectives of the institutions, the business response to the initiative, the recognizable impact of the initiative upon business, and any revealed weaknesses in the nature of the initiative or the business response.⁵⁵

III. INTERNATIONAL AGENCIES

Of the hundreds of international institutional and policy initiatives around corporate social and environmental responsibility and sustainability, the United Nations Global Compact (Global Compact) is the most prominent. The Global Compact was commenced in 1999 by United Nations then-Secretary-General Kofi Annan, to “initiate a global compact of shared values and principles, which will give a human face to the global market.”⁵⁶ The United Nations accepts that “[c]orporate sustainability starts with a company’s value system and a principled approach to doing business.”⁵⁷ With affiliations from 8,375 large corporations in 162 countries, the Global Compact has a remarkable foothold in the boardrooms of the world’s leading corporations.⁵⁸ The ten principles of doing busi-

54. DAVID GRAYSON & JANE NELSON, CORPORATE RESPONSIBILITY COALITIONS: THE PAST, PRESENT, AND FUTURE OF ALLIANCES FOR SUSTAINABLE CAPITALISM (2013); JANE NELSON, BUILDING PARTNERSHIPS: COOPERATION BETWEEN THE UNITED NATIONS SYSTEM AND THE PRIVATE SECTOR (2002).

55. CATHERINE BENOIT & GINA VICKERY-NIEDERMAN, SUSTAINABILITY CONSORTIUM, SOCIAL SUSTAINABILITY ASSESSMENT LITERATURE REVIEW (2010), available at http://www.sustainabilityconsortium.org/wp-content/themes/sustainability/assets/pdf/whitepapers/Social_Sustainability_Assessment.pdf; ROBERT W. KOLB, ENCYCLOPEDIA OF BUSINESS ETHICS AND SOCIETY 458 (2008) (citing a survey of the ILO that listed more than 400 sets of principles and codes aimed at ethical standards, corporate citizenship and responsibility, including the OECD Guidelines for Multinational Enterprises, the Global Sullivan Principles of Corporate Responsibility, the Equator Principles, the Caux Principles, the CERES (Coalition for Environmentally Responsible Economies), and numerous others).

56. Press Release, Secretary-General, Secretary-General Proposes Global Compact on Human Rights, Labour, Environment, in Address to World Economic Forum in Davos, U.N. Press Release SG/SM/6881 (Feb. 1, 1999).

57. UNITED NATIONS GLOBAL COMPACT, GUIDE TO CORPORATE SUSTAINABILITY 11 (2014), available at https://www.unglobalcompact.org/docs/publications/UN_Global_Compact_Guide_to_Corporate_Sustainability.pdf. See generally ANDREAS RASCHE & GEORG KELL, UNITED NATIONS GLOBAL COMPACT: ACHIEVEMENTS, TRENDS AND CHALLENGES (2010); UNITED NATIONS GLOBAL COMPACT, <https://www.unglobalcompact.org/> (last visited Oct. 15, 2015).

58. See UNITED NATIONS GLOBAL COMPACT, *supra* note 57.

ness proposed in the Global Compact involve fundamental responsibilities in the areas of human rights, labor, environment, and anticorruption. The principles are derived from the *Universal Declaration on Human Rights*, the International Labour Organization's *Declaration on Fundamental Principles and Rights at Work*, the Rio Declaration on *Environment and Development*, and the United Nations *Convention Against Corruption*. These principles are seen as a comprehensive and practical tool in "formally committing to, assessing, defining, implementing, measuring and communicating a corporate sustainability strategy."⁵⁹ The United Nations sees the commitment to these principles coming from the top:

Whereas the importance of chief executive commitment to sustainability is often well understood, the focus on the critical role of Boards of Directors is a newer phenomenon. Corporate boards, or equivalent governance entities, must take responsibility for the implementation of and reporting on corporate sustainability, as they do for corporate financial and business performance. Importantly, boards are uniquely positioned to integrate sustainability into executive recruitment and remuneration, paving the way for sustainability outcomes to be linked to compensation across the entire leadership spectrum.⁶⁰

In September 2015, the heads of state and government representatives to the United Nations met to decide on new global Sustainable Development Goals. Going beyond the Millennium Development Goals established in 2000,⁶¹ a new agenda of seventeen Sustainable Development Goals with 169 associated targets were agreed to, representing a universal policy for sustainable development that included:

[M]aking fundamental changes in the way that our societies produce and consume goods and services. Governments, international organizations, the business sector and other non-State actors and individuals must contribute to changing unsustainable consumption and production patterns, including through the mobilization, from all sources, of financial and technical assistance to strengthen developing countries' scientific, technological and innovative capacities to

59. UNITED NATIONS GLOBAL COMPACT, UN GLOBAL COMPACT MANAGEMENT MODEL: FRAMEWORK FOR IMPLEMENTATION (2010), available at https://www.unglobalcompact.org/docs/news_events/9.1_news_archives/2010_06_17/UN_Global_Compact_Management_Model.pdf.

60. UNITED NATIONS GLOBAL COMPACT, BUILDING THE POST-2015 BUSINESS ENGAGEMENT ARCHITECTURE 9 (2013), available at https://www.unglobalcompact.org/docs/about_the_gc/Architecture.pdf.

61. UNITED NATIONS, THE MILLENNIUM DEVELOPMENT GOALS REPORT (2015), available at [http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20\(July%2015\).pdf](http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%2015).pdf).

move towards more sustainable patterns of consumption and production.⁶²

It is the expansive philosophy of the United Nations Sustainable Development Goals that now informs the Global Compact vision of a sustainable world. Though a voluntary commitment, the United Nations Global Compact expects participating companies to report on their progress towards effecting change through producing strategic reports showing measurable gains and losses. This annual Communication on Progress (COP), which is often included in a company's annual report or sustainability report to stakeholders, provides a degree of transparency to the process.

The Global Compact has proved a vehicle for the international dissemination of the values of corporate social and environmental responsibility, and it has provided a productive learning opportunity to many leaders in the corporate sector for whom human rights, labor, environment, and anticorruption would not normally be at the top of their agenda. However, the Global Compact has been criticized as a voluntary exercise with less traction than might at first appear. Sethi and Schepers question the effectiveness of the Global Compact in changing social and environmental performance in its signatory companies, commenting on the low level of accountability and transparency demanded by the United Nations.⁶³ Rasche and Waddock suggest there are two purposes of global governance initiatives: the first to meet the demands of regulatory institutions calling for stricter compliance and monitoring; the second to meet the demands of principles-based initiatives emphasizing a consensus building function.⁶⁴ However, there is a complementarity between the two approaches, and to achieve a global implementation of standards, both approaches are required. While it can be argued that the Global Compact is largely engaged in consensus building, this could be regarded as an important step towards more rigorous compliance initiatives.⁶⁵

The United Nations Principles of Responsible Investment (PRI) is an investor initiative in partnership with the UNEP Finance Initiative and the Global Compact.⁶⁶ Founded in 2006, the PRI has recruited 936 signa-

62. G.A. Res. 70/1, ¶ 28, U.N. Doc. A/RES/70/1 (Sept. 25, 2015).

63. See S. Prakash Sethi & Donald H. Schepers, *United Nations Global Compact: The Promise-Performance Gap*, 122 J. BUS. ETHICS 193 (2014).

64. Andreas Rasche & Sandra Waddock, *Global Sustainability Governance and the UN Global Compact: A Rejoinder to Critics*, 122 J. BUS. ETHICS 209 (2014).

65. *Id.*

66. ALYSSA HEATH & ZOE DRAISEY, PRINCIPLES FOR RESPONSIBLE INVESTMENT, REPORT ON PROGRESS (2015), available at http://www.unpri.org/wp-content/uploads/PRI_Report-on-Progress_2015.pdf.

tories to its principles, 245 asset owners, and 691 investment managers. This represented 19% of asset owners with assets of \$12.4 trillion of a total market of \$64.6 trillion, and 63% of investment managers with assets of \$46.3 trillion of a total market of \$74 trillion. The PRI principles focus upon incorporating environmental, social, and governance (ESG) issues into investment analysis and decisionmaking processes. Signatories are obliged to provide publicly available transparency reports regarding their commitments to ESG issues, confidential assessment reports, and the details of organizational characteristics, asset mixes, responsible investment policies, and governance. This provides the largest data set on investment responsibility in the world; of the 936 PRI reporters in 2015, a total of 725 reported on whether their submissions were assured by third party providers, and 95 (13%) responded they had been assured by independent parties (though in some cases this assurance was partial).⁶⁷

The PRI has taken an active stand on climate change and encourages asset managers to investigate and understand their carbon exposure risk by measuring their portfolio's carbon footprint, and reviewing it with portfolio managers. The purpose is to mitigate their carbon risk exposure and to set a goal to reduce as appropriate for their individual organizations, including considering joining the Portfolio Decarbonization Coalition.⁶⁸

As with the Global Compact, and while acknowledging the success of the PRI in recruiting asset owners and investment managers to the cause (though more extensively in Europe than elsewhere in the world),

Critics query the capacity of the UNPRI to effect change in the practices of target companies. It is very much embedded in a business case approach to responsible investment, does not require signatories to provide formal public reporting of their implementation progress, does not require CSR and ecological sustainability factors to be determinative of any ultimate investment decisions, and does

67. *Id.*; THE ROUTLEDGE HANDBOOK OF RESPONSIBLE INVESTMENT (Tessa Hebb et al. eds., 2016); *Socially Responsible Investment in the 21st Century: Does it Make a Difference for Society*, in 7 CRITICAL STUDIES ON CORPORATE RESPONSIBILITY, GOVERNANCE, AND SUSTAINABILITY (Celine Louche & Tessa Hebb eds., 2014).

68. See PRINCIPLES FOR RESPONSIBLE INVESTMENT, PRI CLIMATE CHANGE STRATEGY PROJECT, DISCUSSION PAPER: REDUCING EMISSIONS ACROSS THE PORTFOLIO (2015), available at http://2xjmlj8428u1a2k5o3411m71.wpengine.netdna-cdn.com/wp-content/uploads/PRI_Discussion-Paper-on-Reducing-Emissions.pdf; *Resources and Videos*, PORTFOLIO DECARBONIZATION COALITION, <http://unepfi.org/pdc/resources-2/> (last visited Oct. 15, 2015).

not require specific quotas of socially and environmentally responsible companies within their investment portfolios.⁶⁹

The PRI has developed and extended the debate on responsible investing internationally; however, the question remains whether the PRI has given too much credibility to investment corporations that have not committed to responsible investing except at the margins.

The Global Reporting Initiative (GRI) was founded in 1997 by CERES and the Tellus Institute in conjunction with the United Nations Environment Program (UNEP). The GRI became a Sustainability Reporting Framework with reporting guidelines at its center, covering environmental, social, economic, and governance issues. In 2002, the GRI relocated from Boston to Amsterdam and was inaugurated as a UNEP collaborating organization. A sequence of four sets of reporting guidelines, G1 to G4, have been published in 2000, 2002, 2006, and 2013.⁷⁰ Over 3,000 experts from business and civil society participated in the development of the G3 reporting guidelines in 2006 in a multistakeholder approach. In 2010, the GRI published guidelines on how to use the GRI in combination with the ISO 26000, a Social Responsibility standard of the ISO.⁷¹ In 2013, the GRI released *Reporting Principles, Standard Disclosures*, and an implementation manual, along with the online publication of G4 as a free web-based tool.⁷²

In 2015, to assist with reporting, the GRI published research on the definition and analysis of materiality at sector and company level: the material issues that will most impact on company value. That is, the most significant material issues impacting the industry include general long-term trends with an impact on industry drivers and common issues within an industry that have an impact on long-term company value:

For each industry, the factors were prioritized according to their expected magnitude (degree of impact) and the likelihood of their im-

69. Kate Miles, *Soft Law Instruments in Environmental Law: Models for International Investment Law*, in INTERNATIONAL INVESTMENT LAW AND SOFT LAW 104 (Andrea K. Bjorklund & August Reinisch eds., 2012). See generally Benjamin J. Richardson, *Keeping Ethical Investment Ethical: Regulatory Issues for Investing for Sustainability*, 87 J. BUS. ETHICS 555 (2009); Joakim Sandberg et al., *The Heterogeneity of Socially Responsible Investment*, 87 J. BUS. ETHICS 519 (2009).

70. *GRI's History*, GLOBAL REPORTING INITIATIVE, <https://www.globalreporting.org/information/about-gri/gri-history/Pages/GRI's%20history.aspx> (last visited Nov. 1, 2015).

71. GLOBAL REPORTING INITIATIVE, GRI AND ISO 26000: HOW TO USE THE GRI GUIDELINES IN CONJUNCTION WITH ISO 26000 (2010), available at <https://www.globalreporting.org/resource/library/How-To-Use-the-GRI-Guidelines-In-Conjunction-With-ISO26000.pdf>; ISO 26000 - *Social Responsibility*, ISO, <http://www.iso.org/iso/home/standards/iso26000.htm> (last visited Nov. 1, 2015).

72. *G4 Sustainability Reporting Guidelines*, GLOBAL REPORTING INITIATIVE, <https://www.globalreporting.org/standards/g4/Pages/default.aspx> (last visited Nov. 1, 2015).

pact (probability and timing of impact) on growth, profitability, capital efficiency and risk. This two-dimensional evaluation resulted in a materiality matrix for each industry, which maps the relative importance of each material factor against the others, and provides a visualization of the most important factors for each industry.⁷³

This was an important step for the GRI as the earlier versions of the reporting framework allowed a box ticking exercise on the number of reported indicators leading to the final scope of the sustainability report. With an emphasis upon materiality, the GRI is taking a stance that sustainability reporting is not about the quantity of metrics reported against, but rather the context and importance of sustainability issues unique to the company and the quality of what is reported, which would include new disclosures on supply chain risks and greenhouse gas emissions.⁷⁴

A large consortium of agencies combined together in the effort to progress a proposal for integrated reporting.⁷⁵ The consortium includes: The Prince's Accounting for Sustainability Project, the Global Reporting Initiative, the World Business Council for Sustainable Development, the World Resources Institute, the World Intellectual Capital Initiative, the Carbon Disclosure Project, the Climate Disclosure Standards Board, the European Federation of Financial Analysts, the United Nations Conference on Trade and Development, the United Nations Global Compact, the International Corporate Governance Network, the Collaborative Venture on Valuing Non-Financial Performance, and many others.⁷⁶ Integrated reporting provides a comprehensive framework for companies:

Integrated Reporting brings together the material information about an organization's strategy, governance, performance and prospects in a way that reflects the commercial, social and environmental context within which it operates. It provides a clear and concise representation of how an organization demonstrates stewardship and how it creates value, now and in the future. Integrated Reporting combines the most material elements of information currently reported in separate reporting strands (financial, management commentary,

73. GLOBAL REPORTING INITIATIVE, *DEFINING MATERIALITY: WHAT MATTERS TO REPORTERS AND INVESTORS 4* (2015), available at <https://www.globalreporting.org/resource/library/Defining-Materiality-What-Matters-to-Reporters-and-Investors.pdf> (last visited Nov. 21, 2015).

74. John Hsu, *Is the GRI's G4 Too Ambitious for Business?*, CARBON TRUST (May 30, 2013), <http://www.carbontrust.com/news/2013/05/is-gris-g4-too-ambitious-for-business/>.

75. INT'L INTEGRATED REPORTING COMM., *TOWARDS INTEGRATED REPORTING: COMMUNICATING VALUE IN THE 21ST CENTURY 7* (2011), available at http://integratedreporting.org/wp-content/uploads/2011/09/IR-Discussion-Paper-2011_spreads.pdf.

76. *Id.*

governance and remuneration, and sustainability) in a coherent whole, and importantly:

- shows the connectivity between them; and
- explains how they affect the ability of an organization to create and sustain value in the short, medium and long term.⁷⁷

Undoubtedly, the GRI and the Integrated Reporting initiatives have raised the corporate social and environmental responsibility debate and considerably sharpened the corporate skills in reporting on this subject. However, both approaches have needed to respond to recurrent criticism. The most common complaint is that social and environmental reporting is too burdensome, when in fact the GRI does adopt a flexible comply-or-explain approach. Companies complain they do not have the data available to report, but the GRI has been in place long enough for large companies to gather what is required, and in an era of “big data,” this gathering is no longer costly. Other companies insist value chain assessments are too complex. However, a refusal to go beyond the legal boundary of the company is not acceptable any longer to multistakeholder groups interested in the impacts of business upstream and downstream.

Companies need to be going beyond incremental reporting to measuring the value cycle of their activities in an integrated and context-based manner that encourages innovation and transition.⁷⁸ Other companies feel confused by the number of standards and frameworks including the GRI, International Integrated Reporting Council (IIRC), and Sustainability Accounting Standards Board (SASB), as each of these frameworks has their own approach on how materiality may be determined, reported, and assessed. Further, the SASB is a compliance-driven approach to materiality based on the U.S. Securities and Exchange Commission (SEC), which contradicts the principles-driven approach of the GRI and IIRC.⁷⁹

77. *Id.* at 6.

78. Ralph Thurm, *Reforming Sustainability Reporting: For and Against*, GUARDIAN (Mar. 11, 2013), <http://www.theguardian.com/sustainable-business/reforming-sustainability-reporting-pros-cons>.

79. Jeff Leinaweaver, *Is Corporate Sustainability Reporting a Great Waste of Time?*, GUARDIAN (Jan. 6, 2015), <http://www.theguardian.com/sustainable-business/2015/jan/06/corporate-sustainability-reporting-waste-time>.

IV. MARKET INDICES

There are many market indices that assist investors in making informed investment decisions, and among them are a group of increasingly influential sustainability indices that focus upon corporate, social, and environmental performance.⁸⁰ The FTSE4Good Index Series is designed to measure the performance of companies demonstrating strong Environmental, Social, and Governance (ESG) practices. The FTSE4Good Index Series criteria are based on publicly available data in assessing ESG practices, and do not accept privately provided data from companies, which is intended to enhance transparency. The ratings process for the FTSE4Good has an independent committee of experts from the investment community, companies, NGOs, unions, and academia to oversee the reviews and methodology development.⁸¹ The series consists of six benchmark indices covering the global and European regions, the United States, Japan, and the United Kingdom, and an additional five tradable indices. The criteria consist of governance (corporate governance, risk management, tax transparency, and anticorruption), social (health and safety, labor standards, human rights and community, and customer responsibility), and environment (climate change, water use, biodiversity, pollution, and resources). Companies are rated against these criteria, and can be removed from the index if they fall below a minimum standard for a twelve-month period. Companies that manufacture tobacco, weapons systems, and components for controversial weapons, including cluster bombs and chemical/biological weapons, are excluded from the series.⁸²

The rigor applied by the FTSE4Good ratings system is somewhat attenuated by the realization that all of the indices are heavily influenced by economic criteria of scale and profitability. For example, the FTSE4Good Global Index produces a list of household names in the top positions (for example, in 2015 the top ten constituents were: Apple Inc., Microsoft, Wells Fargo, Johnson & Johnson, Nestlé, Novartis, AT&T, Proctor & Gamble, Roche, and Verizon Communications).⁸³ While each of the companies will have made some considerable efforts to raise their

80. *Ethical Indices*, BUS. ETHICS BRIEFING, Sept. 2013, at 1, available at <http://www.ibe.org.uk/userfiles/ethicalindices.pdf>.

81. FTSE, INDEX INCLUSION RULES FOR THE FTSE4GOOD INDEX SERIES (2015) [hereinafter FTSE, INDEX INCLUSION RULES], available at <http://www.ftse.com/products/downloads/F4G-Index-Inclusion-Rules.pdf>; FTSE, FTSE4GOOD: TEN YEARS OF IMPACT AND INVESTMENT (2011), available at http://www.ftse.com/products/downloads/FTSE4Good_10_Year_Report.pdf.

82. FTSE, INDEX INCLUSION RULES, *supra* note 81, at 9.

83. *Factsheets*, FTSE, <http://www.ftse.com/analytics/factsheets/Home/Search> (search “FTSE4Good Global Index” and click hyperlink to download report) (last update Nov. 30, 2015).

social and environmental performance over the years, they could each be questioned on some aspect of their performance. For example, the leader, Apple Inc., has a very checkered history with its 350 contractor plants in China, and its lack of progress despite dealing with this for years.⁸⁴

The rival S&P Dow Jones Sustainability Indices (DJSI) were launched in 1999 as the first global indices tracking the financial performance of leading sustainability-driven companies with an integrated assessment of their economic, environmental, and social performance with a focus on long-term shareholder value.⁸⁵ A rules-based methodology focuses on best-in-class companies with a total of 3,470 companies invited and 1,845 analyzed distributed among a DJSI World, Europe, North American, Asia Pacific, Emerging Markets, Korea, and Australia indices. Since 2014, key changes have been introduced to criteria, which include corporate governance, risk and crisis management, customer relationship management, and environmental policy and management systems. In September 2015, the S&P DJSI launched three new climate change index series in association with Trucost: the S&P Global 1200 Carbon Efficient Index Series, S&P Global 1200 Carbon Efficient Select Index Series, and S&P Global 1200 Fossil Fuel Free Index Series. All three index series are derived from the constituents of the S&P Global 1200, and will focus attention keenly on the carbon footprint of listed companies.⁸⁶ “Climate change and its impact present a challenge from an investment perspective,” commented Julia Kochetygova, Head of Sustainability Indices at S&P Dow Jones Indices.⁸⁷ Kochetygova continued:

Many investors are trying to facilitate the transition to a low carbon economy by financing projects in the renewable energy sector, avoiding high carbon producing companies or minimizing their exposure to fossil fuel companies. The three new S&P DJI index series are designed to provide alternative performance narratives to standard benchmarks, being comprised of those companies meeting

84. Thomas Clarke & Martijn Boersma, *The Governance of Global Value Chains: Unresolved Human Rights, Environmental and Ethical Dilemmas in the Apple Supply Chain*, J. BUS. ETHICS (forthcoming), available at http://www.academia.edu/14558563/The_Governance_of_Global_Vaue_Chains_Unresolved_Human_Rights_Environmental_and_Ethical_Dilemmas_in_the_Apple_Supply_Chain (published online July 30, 2015).

85. ROBECO/SAM, DJSI 2015 REVIEW RESULTS 3 (2015), available at <http://www.sustainability-indices.com/images/review-presentation-2015.pdf>.

86. *New Climate Change Index Series Launched by S&P Dow Jones Indices*, TRUCOST (Sept. 17, 2015), <http://www.trucost.com/news-2015/209/S&P/carbon-efficient/indices>.

87. *Id.*

the strict fossil fuel and carbon efficient standards set within each index series.⁸⁸

However, again the rigor of the DJSI assessment criteria—“the gold standard for corporate sustainability”⁸⁹—experienced something of a shock when on September 21, 2015, Volkswagen AG (VW) was listed as the industry group leader for Automobiles and Components, and on September 29, 2015, the S&P Dow Jones Indices announced that VW was to be removed from the Dow Jones Sustainability Indices as a result of revelations that it had manipulated emissions tests to conceal the level of toxic pollutants issuing from its diesel engines in popular saloon cars in the United States.⁹⁰

The mainstream sustainability indices have a way to go to establish both rigor and relevance in the marketplace:

Even though many indices verify the disclosures submitted by companies, they are still subject to the criticism that they are exposed to corporate bias. It has been suggested that indices reward the companies with greatest capacity to respond to the questionnaires rather than those with the best socially responsible practices and that they are more of a reflection of successful marketing than proven sustainability performance.⁹¹

The consultancy SustainAbility suggests we should rate the raters.⁹² Bendall astutely observes the inspiring aspirations but serious limitations of ESG analyses which:

- Rely predominantly on information published or provided by the companies being assessed;
- Focus analysis on management policies and processes not on the actual ESG impacts and outcomes of the companies;
- Assess companies within a downside risk framework focusing on the management of negative externalities that can lead to damage to reputation or litigation (rather than focus-

88. *Id.*

89. Press Release, S&P Dow Jones Indices, Results Announced for 2015 Dow Jones Sustainability Indices Review 1 (Sept. 10, 2015), <http://www.sustainability-indices.com/images/150910-djsi-review-2015-en-vdef.pdf>.

90. *Volkswagen AG to Be Removed from the Dow Jones Sustainability Indices*, S&P DOW JONES INDICES (Sept. 29, 2015), http://www.sustainability-indices.com/images/150929-statement-vw-exclusion_vdef.pdf; ROBECO/SAM, *supra* note 85, at 7.

91. *Ethical Indices*, *supra* note 80, at 5.

92. See SUSTAINABILITY, RATE THE RATERS PHASE 3 UNCOVERING BEST PRACTICES (2011), available at http://www.aristastandard.org/content_files/rtrphase3report3.pdf; *Rate the Raters*, SUSTAINABILITY, <http://www.sustainability.com/projects/rate-the-raters> (last visited Nov. 1, 2015).

ing on whether the company is creating greater social or environmental value for society);

- Use limited frameworks for understanding complex and evolving fields of corporate responsibility, and reductionist methods to assess companies;
- Are not completely independent from the companies they are assessing;
- Conflate the materiality of ESG issues for financial performance of investments, and the materiality of those issues to affected stakeholders and wider society;
- Run indices or supply data to indices including companies that could never be sustainable, and blur the issue of responsible investing for fund managers;
- Do not integrate the ESG analysis products and ratings with the mainstream financial analysis and ratings they offer, partly because of the commercial interest in maintaining different products;
- Are not completely transparent about their methods of research, analysis, and ranking, or about their general operations to allow stakeholders and regulators to assess their credibility.⁹³

The further development and influence of ESG market indices will depend upon how well they can demonstrate their independence from the corporations they are rating, and in turn how well the corporations can verify the authenticity and value of the ESG data on their performance.

The admirable goals of the Sustainable Stock Exchanges Initiative (SSEI), commenced by a Sustainability Working Group with representatives of twenty-three global stock exchanges formed with the backing of the World Federation of Exchanges (WFE),⁹⁴ must be informed by the ideals, yet aware of the limitations, of the existing sustainability indices.⁹⁵ The value proposition for stock exchanges adopting environmental, social, and governance principles recognized by the SSEI include:

93. Jem Bendell, *World Review*, J. CORP. CITIZENSHIP, July-Sept. 2010, at 6, 19.

94. The WFE is the trade association for all regulated stock, futures, and options exchanges that list more than 44,000 companies representing a total market capitalization of \$60 trillion.

95. See SUSTAINABLE STOCK EXCHANGES INITIATIVE, MODEL GUIDANCE ON REPORTING ESG INFORMATION TO INVESTORS (2015), available at <http://www.sseinitiative.org/wp-content/uploads/2015/09/SSE-Model-Guidance-on-Reporting-ESG.pdf>.

- Developing well-functioning markets, which are more resilient and less volatile;
- Contributing to stronger, more transparent listed companies that are better able to identify and manage risks and opportunities;
- Creating more attractive markets where investors can better evaluate fundamental drivers of value creation, and as more investors recognize the value of ESG information, they will direct more of their activity to exchanges that foster it;
- Helping companies navigate, comply with or stay ahead of regulations that require disclosure of financially material ESG information;
- Assisting companies in differentiating themselves on ESG matters, which is quickly becoming a competitive imperative; and
- Contributing to the achievement of national and international sustainable development commitments and priorities, such as the UN Sustainable Development Goals, and steering investment towards sustainable development priorities.⁹⁶

It seems likely that the sustainability imperative will have an increasing impact upon investors and stock exchanges throughout the world as the materiality of environmental, social and governance factors becomes fully appreciated.

V. BUSINESS AND CIVIL SOCIETY INITIATIVES

The World Business Council for Sustainable Development (WBCSD) is one of the most prominent of the international business agencies campaigning for corporate environmental, social, and governance responsibility, and is closely aligned with the fundamental principles of the Global Compact, UN Millennium Development Goals, and now the 2015 UN Sustainable Development Goals. As outlined in successive policy statements (Vision 2050,⁹⁷ Changing Pace,⁹⁸ and CEO

96. *Id.* at 7–8.

97. WORLD BUS. COUNCIL FOR SUSTAINABLE DEV., VISION 2050: THE NEW AGENDA FOR BUSINESS, available at <http://www.wbcd.org/vision2050.aspx> (last visited Nov. 1, 2015).

98. WORLD BUS. COUNCIL FOR SUSTAINABLE DEV., CHANGING PACE (2010) [hereinafter WBCSD, CHANGING PACE], available at <http://www.wbcd.org/Pages/EDocument/EDocumentDetails.aspx?ID=14622&NoSearchContextKey=true>.

Guide to Climate Change⁹⁹) the WBCSD recognizes businesses cannot leave public policy with all of the heavy lifting to create a sustainable world. There are several reasons for this. First, public financing alone will fall short of the necessary investment levels to create a global economy that successfully deals with the resource and carbon limitations of the future. Next, a predictable, certain, and long-term policy will encourage businesses to work with investors to implement and scale-up solutions. Finally, the Green Race will need to evolve as we move through the different stages of exploring, testing, scaling-up, and learning from yet unfound solutions. This is best carried out in close cooperation between businesses and governments.¹⁰⁰

The WBCSD is committed to eco-efficiency, which is “to embrace practices that start to decouple economic growth, human development, and well-being from negative environmental and social impacts.”¹⁰¹ More critically, Stephan Schmidheiny, the industrialist founder of the WBCSD, acknowledges that eco-efficiency “is also about redefining the rules of the economic game in order to move from a situation of wasteful consumption and pollution to one of conservation, and from one of privilege and protectionism to one of fair and equitable chances open to all.”¹⁰² WBCSD has developed policies on climate change and carbon emissions with We Mean Business,¹⁰³ a consortium of other agencies including Business for Social Responsibility (BSR), the Carbon Disclosure Project (CDP), and the Climate Group. These policies include campaigning for science-based emissions reductions, putting a price on carbon, procuring 100% of electricity from renewable sources, and reporting climate change information in mainstream reports as a fiduciary duty. Supporting this campaign are organizations such as the Portfolio Decarbonization Coalition¹⁰⁴ and the Low Carbon Technology Partnership Initiative (LCTPI).¹⁰⁵

The fact that these initiatives are having traction with companies internationally is illustrated by the companies that report their greenhouse

99. WORLD BUS. COUNCIL FOR SUSTAINABLE DEV., THE CEO GUIDE TO CLIMATE ACTION 2015 (2015), available at <http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=16483&NoSearchContextKey=true>.

100. See WBCSD, CHANGING PACE, *supra* note 98, at 2.

101. *Id.*

102. STEPHAN SCHMIDHEINY, CHANGING COURSE: A GLOBAL BUSINESS PERSPECTIVE ON DEVELOPMENT AND THE ENVIRONMENT 13 (1992).

103. See WE MEAN BUSINESS, <http://wemeanbusinesscoalition.org/> (last visited Nov. 1, 2015).

104. See PORTFOLIO DECARBONIZATION COALITION, <http://unepfi.org/pdc/> (last visited Nov. 1, 2015).

105. See LOW CARBON TECH. P'SHIP INITIATIVE, <http://lctpi.wbcsdservers.org/> (last visited Nov. 1, 2015).

gas emissions, water management, and climate change strategies to the Carbon Disclosure Project, which has increased from 253 unique company reports in 2003, to 5003 companies disclosing in 2014.¹⁰⁶ CDP and the Climate Group have compiled a list of companies with 100% greenhouse gas emissions reductions targets achieved by 2014 (Table 2), a number of which have pursued zero emissions through their value chain.¹⁰⁷ Even if most of these companies are in industries where there are not very large emissions to eliminate, this is a remarkable feat, and a beacon for other companies in more emissions-intensive industries to follow. As Eric Schmidt, Executive Chairman of Alphabet Inc. (formerly Google) comments, “We’re serious about environmental sustainability not because it’s trendy, but because it’s core to our values and makes good business sense. After all, the cheapest energy is the energy you don’t use in the first place. And in many places clean power is cost-competitive with conventional power.”¹⁰⁸

[TABLE 2 and Related Info HERE]

Table 2: Companies With 100% GHG Emissions Reduction Targets

Further widespread adoption of zero emissions policies by business and plans for green growth will be inseparable from the commitments to delivering major emissions reductions in successive international climate change negotiations, with national governments accelerating the transition of corporations towards total decarbonization. Assisting corporations to think strategically in this direction is the work of agencies, such as Trucost, which highlight to investors the real cost of carbon, and how this must be incorporated into estimates of the market valuation of corporations. Trucost is a dedicated consultancy established by a number of large financial institutions in London to examine natural capital dependency across companies, products, supply chains, and investments, with a view to managing risks from volatile commodity prices and increasing environmental costs, and ultimately building more sustainable business models. “It isn’t ‘all about carbon’; it’s about water; land use; waste and pollutants. It’s about which raw materials are used and where they are

106. *Reports and Data*, CARBON DISCLOSURE PROJECT, <https://www.cdp.net/en-US/Results/Pages/overview.aspx> (last visited Nov. 1, 2015).

107. CARBON DISCLOSURE PROJECT, UNLOCKING AMBITION AND DRIVING INNOVATION 3 (2015), available at <https://www.cdp.net/Documents/policy/CDP-targets-briefing-2014.pdf>.

108. Eric Schmidt, *Rising to the Climate Challenge*, GOOGLE BLOG (July 27, 2015), <https://googleblog.blogspot.com/2015/07/rising-to-climate-challenge.html>.

sourced, from energy and water to metals, minerals and agricultural products. And it's about how those materials are extracted, processed and distributed."¹⁰⁹ Natural capital is defined by Trucost as: "The finite stock of natural assets (air, water and land) from which goods and services flow to benefit society and the economy. It is made up of ecosystems (providing renewable resources and services), and non-renewable deposits of fossil fuels and minerals."¹¹⁰

Trucost suggests that the world's largest natural capital risks—faced by business, investors, and governments—are costing the global economy in the order of \$4.7 trillion dollars per year.¹¹¹ Resource intensive industries and supply chains around the planet are incurring these natural capital costs, and internalization of the costs by companies and industries has only occurred at the margins. However, confronted by the prospect of another 3 billion middle-class consumers by 2030, demand for natural resources will grow rapidly as supply continues to shrink. "The consequences in the form of health impacts and water scarcity will create tipping points for action by governments and societies. The cost to companies and investors will be significant."¹¹² Trucost is engaged in informing companies and investors how to measure and manage natural capital impacts, to focus on high-risk areas, and to develop mitigation.¹¹³

Together with examining the impact and costs of climate change, the cost of ongoing depletion of ecosystems and biodiversity must also be estimated. Trucost is a member of The Economics of Ecosystems and Biodiversity in Business and Enterprise (TEEB), which is supported by the G8 and UN Environment Programme and the European Commission, together with the German, United Kingdom, Norwegian and Netherlands governments.

TEEB has many key messages on business, biodiversity and the ecosystem including:

- The world is changing in ways that affect the value of biodiversity and ecosystem services (BES) to business. The value of biodiversity and ecosystem services is a function of population growth, urbanization, economic growth, and ecosystem decline.

109. *What We Do*, TRUCOST, <http://www.trucost.com/what-we-do> (last visited Nov. 5, 2015).

110. *Natural Capital at Risk*, *supra* note 50, at 3.

111. *Id.* at 6.

112. *Id.*

113. *What We Do*, *supra* note 109; see also Joel Makower, *The State of Green Business 2015*, GREENBIZ GROUP INC. (Feb. 2, 2015, 2:11 AM), <https://www.greenbiz.com/microsite/100061/article/state-green-business-2015>.

- Biodiversity loss and ecosystem decline cannot be considered in isolation from other trends, which are growing and shifting markets, resource exploitation, and climate change.
- Business risks and opportunities associated with biodiversity and ecosystem services are growing, and with the interaction between biodiversity loss, decline in ecosystem services, and other major trends, business can expect increased risks and opportunities over time.
- There will be increasing pressure on, and more restricted access to, natural resources with growing market demand for natural resources and increasing public concerns about the environment.
- Consumers increasingly consider biodiversity and ecosystems in their purchasing decisions, which companies and their suppliers will need to re-examine.
- Businesses are beginning to notice the threat posed by biodiversity loss, and surveys of CEOs indicate a growing concern about the impact of biodiversity loss on their business growth.¹¹⁴

TEEB draws attention to the invisibility of nature in the economic choices we make, and how this is a key driver of the ongoing depletion of ecosystems and biodiversity. Valuation as an institutional development in diverse social contexts, and many other contexts, has a role to play in stemming the tide of degradation of ecosystems and the loss of biodiversity. There are concerns about valuation in conditions of economic and environmental uncertainty, and TEEB recognizes that values are a product of different worldviews and treats them in their respective socio-cultural contexts. However, TEEB argues in the absence of valuation essential ecosystem services are presently being traded as commodities often with an implicit value of zero. Policy responses are required to resolve the public goods problem underlying biodiversity loss and ecosystem degradation, such as land use planning, regulation, and payments for environmental services. Corporate impacts and dependencies on biodiversity and ecosystem services should be measured and valued as an integral part of statutory reporting and disclosure in the interests of the conservation of the natural commons and intra-generational equity.¹¹⁵

114. THE ECONOMICS OF ECOSYSTEMS AND BIODIVERSITY IN BUSINESS AND ENTERPRISE 3 (Joshua Bishop ed., 2013).

115. PAVAN SUKHDEV ET AL., THE ECONOMICS OF ECOSYSTEMS AND BIODIVERSITY (TEEB): CHALLENGES AND RESPONSES 3 (2014), available at <http://img.teebweb.org/wp-content/uploads/>

A Natural Capital Coalition has now formed to provide a global platform of business, accounting, consultancy, academia, and government members working on natural capital with a common vision.¹¹⁶ The purpose is building the business case for integrating natural capital into decisionmaking; developing and testing natural capital protocols and sectoral guidelines; shifting corporate behavior towards enhancing rather than depleting natural capital; and supporting the evolution of an enabling policy environment and access to reliable data.¹¹⁷

Most of the coalitions and initiatives considered thus far have primarily dealt with the environmental impact of business; however, there are many other initiatives that focus on wider social, economic, and governance concerns internationally and in specific sectors. An outstanding illustration of this development is the Extractive Industries Transparency Initiative (EITI), which in 2003 established firm principles of responsibility for the resources sector. This sector is central to the economic development of many emerging economies. However, too often in the past the operation of resources companies in poor countries has been associated with political corruption, which has enriched national politicians and impoverished local communities. Putting this into perspective in key emerging economies, extractive industry revenues as a percentage of government revenue range from 96% in Nigeria to 22% in Liberia.¹¹⁸ As Clare Short, the Chair of the EITI Board, stated:

The wealth from a country's natural resources should benefit all its citizens and . . . this will require high standards of transparency and accountability. After the principles were agreed, rules were drawn up to ensure that all EITI member countries committed to minimum levels of transparency in company reporting of revenues paid and government reporting of receipts.¹¹⁹

The EITI has proved successful in bringing together a grand coalition of forty-eight resources countries implementing the EITI standard, with even more supporting countries preparing to implement the standard. Additionally, major resources companies and investors, as well as

2014/09/TEEB-Challenges-and-Responses.pdf.

116. *Natural Capital Coalition Members*, NATURAL CAPITAL COALITION, <http://www.naturalcapitalcoalition.org/about/coalition-members.html> (last visited Nov. 5, 2015).

117. *About the Natural Capital Coalition*, NATURAL CAPITAL COALITION, <http://www.naturalcapitalcoalition.org/about/the-ncc.html> (last visited Nov. 5, 2015).

118. *The Importance of Natural Resources for Government Revenues*, EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE (Feb. 2, 2015, 9:16 AM), <http://progrep.eiti.org/2015/glance/importance-natural-resources-government-revenues>.

119. EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE, *THE EITI STANDARD 2015*, at 6 (2015), available at https://eiti.org/files/English_EITI_STANDARD.pdf.

leading representatives of civil society organizations are preparing to implement the EITI standard. Together these groups have committed to the effective implementation and monitoring of the EITI principles. Over time the EITI reporting process has widened in scope and involved deeper disclosure, offering a more complete account of the extractive industries in a country. Reports now disclose disaggregated revenue figures by individual companies and revenue streams for each country. Ten countries have begun to disclose the beneficial ownership of extractive companies operating in their country, and almost all countries publish data on production and licencing.¹²⁰ As a result of these efforts the EITI has promoted the open and accountable management of natural resources in the most vulnerable economies, which were until recently opaque and impenetrable:

In emerging and middle-income economies, the EITI process provides a mechanism through which to gauge institutional reform both in the extractive industries and in broader fiscal revenue management. Data disclosed through the EITI are increasingly quoted in frontier markets' sovereign bond prospectuses, commodity producers' share offerings and fundraising brochures for private equity and investment funds.

The EITI offers credible insights into institutional strength and governance.¹²¹

Collectively, this huge and multifaceted effort by both business and civil society—by all the agencies and initiatives discussed above—represents a great advance in the campaign for corporate environmental, social, and governance responsibility. The ideals manifested are often exemplary, and whatever weaknesses and limitations revealed in the complex challenges these initiatives face, in aggregate, the initiatives do represent a significant institutional development in the cause of corporate responsibility. The question remains: has corporate law in any way responded to this enhanced sense of the widening scope of company directors' duties and the increasing impact of corporate social and environmental responsibility?

120. *A Step Change in Extractive Transparency*, EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE (July 7, 2015, 8:49 AM), <http://progrep.eiti.org/2015/glance/lessons>.

121. EXTRACTIVE INDUS. TRANSPARENCY INITIATIVE, QUANTIFYING INTANGIBLES: USING EXTRACTIVE INDUSTRIES TRANSPARENCY INITIATIVE (EITI) IN CREDIT RATINGS ASSESSMENTS 4 (2015) (footnote omitted), available at https://eiti.org/files/20150825_eiti_brief_how-to-use-the-eiti-in-credit-rating-assessments.pdf.

VI. THE CHANGING LANDSCAPE OF FIDUCIARY DUTY IN THE TWENTY-FIRST CENTURY

Given the enormity of the environmental and social threat that humanity has encountered in recent decades, and given the range and extent of the civil, professional, business, and governmental response to the impending crisis of climate change, it is curious that there has been comparatively little change in corporate law or in directors' duties.¹²² This is especially so, since internationally, there have been substantial reforms in environmental and other related law. One explanation for this paradox is that directors, in pursuing the success of the company, are already able and willing to take into account the impact of environmental and social changes and to develop strategies to mitigate or adapt to these threats. That is, directors are becoming increasingly aware of the elephant in the boardroom and are interpreting their duties in this context:

It is estimated that the top 100 environmental externalities cost the global economy around US\$4.7 trillion a year, according to a 2013 report commissioned by The Economics of Ecosystems and Biodiversity (TEEB) for Business Coalition, now known as the Natural Capital Coalition. The report observes that half of all existing corporate profits are at risk if the costs associated with natural capital were to be internalised through market mechanisms, regulation or taxation. A water shortage, for example, would have a 'severe' or 'catastrophic' impact on 40% of Fortune 100 companies.¹²³

Company directors are nearer to the coal face than to the courts, and, as Barker insists, material and insistent evidence "posits climate change as a squarely financial concern: not only consistent with, but prerequisite to, the maximization of wealth, and therefore imperative to directors' oversight of risk and strategy."¹²⁴ In other words, directors will incorporate environmental and social responsibility into their decisionmaking as part of a balanced assessment of the risks and opportunities facing the company. Barker continues:

As the impacts of climate change continue to intensify, so too does the likelihood that corporations who are not strategically positioned to manage them will be placed at a significant competitive disadvantage. This undermines the maximisation of corporate wealth or value and, in some cases, may raise the prospect of insolvency. In

122. Gordon L. Clark, *Fiduciary Duty and the Search for a Shared Conception of Sustainable Investment*, in *CAMBRIDGE HANDBOOK OF INSTITUTIONAL INVESTMENT AND FIDUCIARY DUTY* 265 (James P. Hawley et al. eds., 2014).

123. Rapacioli et al., *supra* note 50, at 6.

124. Barker, *supra* note 38, at 13.

such circumstances . . . the regulator charged with maintaining the integrity of the market, may hold directors to account for any breach of the corporate governance laws. And shareholders and creditors may look to recover their losses from directors and their deep-pocketed insurers.¹²⁵

Much attention has been focused on the effort to reform the interpretation of directors' duties in the United States with corporate constituency statutes, and with the development of B Corporations with more inclusive objectives.¹²⁶ This has been done in the United Kingdom with Section 172(1) of the Companies Act 2006, which states directors should have regard to the impact of the company's operations on the community and environment.¹²⁷ However, imperceptibly wider changes may have been occurring in the interpretation of directors' duties in practice (which were always more carefully balanced than the naked tenets of shareholder primacy urged). In fact, the narrow strictures of shareholder value routinely neglected the ethical foundation of business, as a University of Cambridge study argues: "[T]he separation of ethics from fiduciary duty assumes that the overriding interest of savers is to make the most money possible, regardless of the social and environmental consequences—a view that has never been verified through robust empirical research but, rather, imputed without consent."¹²⁸ The landscape of directors' fiduciary duty is changing dramatically in the twenty-first century, and both company directors and investors need to respond. As a UNEP international survey of asset owners, investment managers, lawyers, and regulators concludes: "Failing to consider long-term investment value drivers, which include environmental, social and governance issues, in investment practice is a failure of fiduciary duty."¹²⁹

The reevaluation of fiduciary duty is presently taking place and will prove to be profound. As Watchman states, "The concept of fiduciary duty is organic, not static. It will continue to evolve as society changes, not least in response to the urgent need for us to move towards an envi-

125. *Id.*

126. *See, e.g., Corporation Legal Road Map*, B CORP., <https://www.bcorporation.net/become-a-b-corp/how-to-become-a-b-corp/legal-roadmap/corporation-legal-roadmap> (last visited Nov. 5, 2011).

127. Companies Act, 2006, c. 46, § 172, sch. 1 (Eng.).

128. UNIV. OF CAMBRIDGE INST. FOR SUSTAINABLE LEADERSHIP, THE VALUE OF RESPONSIBLE INVESTMENT: THE MORAL, FINANCIAL, AND ECONOMIC CASE FOR ACTION 17 (2014), available at <http://www.cisl.cam.ac.uk/publications/publication-pdfs/ilg-the-value-of-responsible-investment.pdf>.

129. RORY SULLIVAN ET AL., UNITED NATIONS ENV'T PROGRAMME, FIDUCIARY DUTY IN THE 21ST CENTURY 9 (2015), available at http://www.unepfi.org/fileadmin/documents/fiduciary_duty_21st_century.pdf.

ronmentally, economically and socially sustainable financial system.”¹³⁰ What is occurring is the widespread and insistent development of soft law to deal with the wicked complexities the overwhelming emergency of climate change has exposed. While soft law has its limitations, it may also be applied intelligently and promptly to deal with changing circumstances, and it can be translated into hard law when required and possible.

The term “soft law” entered the international lexicon in the 1970s as a descriptive and differentiating phrase: soft law was anything that was not in fact, hard law promulgated by a government body authorised to enact it, but that nonetheless was designed to affect, or actually did affect, behaviour and that might in time solidify into hard law or otherwise affect the development of hard law.¹³¹

Soft law does possess authority. For example, the UN Declaration of Human Rights is the most translated document in the world (in 370 languages), and yet has no legal status.¹³²

There are many current issues that will sharpen company directors' sense of fiduciary duty regarding the materiality of environmental and social concerns. The issue of “Loss and Damage” from climate change (the impact of climate change not mitigated by reductions in emissions) is now on the agenda of the UN Framework Convention on Climate Change, with discussion of the case for compensation.¹³³ Addressing the insurance industry, Mark Carney stated:

Participants in the Lloyd's market know all too well that what appear to be low probability risks can evolve into large and unforeseen costs over a longer timescale. Claims on third-party liability insurance—in classes like public liability, directors' and officers' and professional indemnity—could be brought if those who have suffered losses show that insured parties have failed to mitigate risks to the climate; failed to account for the damage they cause to the environment; or failed to comply with regulations.

130. *Id.* at 13.

131. Andrea K. Bjorklund, *Assessing the Effectiveness of Soft Law Instruments in International Investment Law*, in *INTERNATIONAL INVESTMENT LAW AND SOFT LAW* 51, 51 (Andrea K. Bjorklund & August Reinisch eds., 2012).

132. *A New World Record: Universal Declaration in 370 Languages*, UNITED NATIONS OFF. HIGH COMMISSIONER HUMAN RIGHTS (Apr. 23, 2010), <http://www.ohchr.org/EN/NewsEvents/Pages/AnewworldrecordUDHR.aspx>.

133. The UNFCCC Warsaw agreement in 2013 discussed support for measures to address loss and damage. See Framework Convention on Climate Change, Warsaw, Pol., Nov. 11–23, 2013, *Report of the Conference of the Parties on its Nineteenth Session*, U.N. Doc. FCCC/CP/2013/10/Add. 1 (Jan. 31, 2014).

Cases like Arch Coal and Peabody Energy^[134]—where it is alleged that the directors of corporate pension schemes failed in their fiduciary duties by not considering financial risks driven at least in part by climate change—illustrate the potential for long-tail risks to be significant, uncertain and non-linear.¹³⁵

There are a number of recent cases of directors of major corporations who have encountered the environmental risks that can evolve into immense unforeseen costs. On February 5, 2015, BP agreed to a \$20.8 billion civil claims settlement with U.S. federal and state authorities over the 2010 Deepwater Horizon disaster, with \$8.1 billion of the funds designated for coastal wetlands and marine mammals as part of a fifteen year Gulf of Mexico restoration program.¹³⁶ The goals of this program focus on wildlife, habitat, water quality, and recreational activities. The deal was the largest ever reached by the Department of Justice against a single entity. BP will not be allowed to take any tax deductions for the civil portion of its penalty, and if the company changes ownership the United States can demand immediate payment from the company. BP has already paid out \$5.8 billion to people and businesses hurt by the oil spill as part of a 2012 settlement, and the company faces damages claims connected to class action settlements and lawsuits brought in addition to the earlier settlements. The company also faces securities litigation brought on behalf of some investors.¹³⁷ The U.S. Attorney General, Loretta Lynch, said:

BP is receiving the punishment it deserves, while also providing critical compensation for the injuries it caused to the environment and the economy of the Gulf region. The steep penalty should inspire BP and its peers to take every measure necessary to ensure that nothing like this can ever happen again.¹³⁸

The spill “inflicted unprecedented damage,” said Lynch.¹³⁹ “Ecosystems were disrupted. Businesses were shuttered. Countless men and women lost their livelihoods and their sense of security.”¹⁴⁰

134. See *Roe v. Arch Coal Inc.*, No. 4:15-cv-00910-NAB (E.D. Mo. filed June 9, 2015); *Lynn v. Peabody Energy Corporation*, No. 4:15-cv-00916-AGF (E.D. Mo. filed June 11, 2015).

135. Carney, *supra* note 32, at 9–10 (footnote omitted).

136. *BP Finalises \$20.8 Billion Deepwater Horizon Settlement*, FIN. TIMES (Oct. 6, 2015), <http://www.ft.com/intl/cms/s/0/52cf6c3a-28af-11e5-8db8-c033edba8a6e.html#axzz3osEx8DSE> (available with subscription only).

137. *Id.*

138. Dominic Rushe, *Deepwater Horizon: BP Got ‘Punishment It Deserved’* Loretta Lynch Says, GUARDIAN (Oct. 5, 2015), <http://www.theguardian.com/environment/2015/oct/05/deepwater-horizon-bp-got-punishment-it-deserved-loretta-lynch-says>.

139. *Id.*

The settlement took BP's total budget for the oil spill to more than \$54 billion with eighteen years to pay the fine.¹⁴¹ BP lost 55% of its share price in the months after the oil spill, and five years later still had not recovered its market capitalization as it proceeded through a major divestiture of assets in the ensuing years.¹⁴² This was the largest offshore oil spill in U.S. history, and it is regarded as one of the worst man-made natural disasters.

Yet this tragic disaster that cost the lives of eleven oil rig workers could have been prevented, as the Report to the President prepared by the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling insisted.¹⁴³ A report from the Bureau of Ocean Energy Management, Regulation and Enforcement found that BP, and in some instances contractors, had failed to follow a series of federal safety regulations.¹⁴⁴ A U.C. Berkeley study stated: "This disaster was preventable had existing progressive guidelines and practices been followed. This catastrophic failure appears to have resulted from multiple violations of the laws of public resource development, and its proper regulatory oversight."¹⁴⁵ The report further stated, "[T]hese failures (to contain, control, mitigate, plan, and clean-up) appear to be deeply rooted in a multidecade history of organizational malfunction and short-sightedness."¹⁴⁶

In fact, BP had a scarcely concealed appalling health and safety record. This record included a 2005 explosion at its Texas City oil refinery which caused fifteen deaths and injured 180 people; the largest oil spill on Alaska's North Slope; two further toxic spills from the Texas City refinery in 2007 and 2010; and a Caspian Sea gas leak and blow out in 2008.¹⁴⁷ BP's dismal safety record was known in the industry and BP

140. *Id.*

141. *Id.*

142. Alex Chamberlin, *BP Lost 55% Shareholder Value After the Deepwater Horizon Incident*, MARKET REALIST (Sept. 10, 2014), <http://marketrealist.com/2014/09/bp-lost-55-shareholder-value-deepwater-horizon-incident/>.

143. NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING vii (2011), *available at* <http://www.gpo.gov/fdsys/pkg/GPO-OILCOMMISSION/pdf/GPO-OILCOMMISSION.pdf>.

144. BUREAU OF OCEAN ENERGY MGMT., REGULATION AND ENFORCEMENT, REPORT REGARDING THE CAUSES OF THE APRIL 20, 2010 MACONDO WELL BLOWOUT (2011), *available at* http://docs.lib.noaa.gov/noaa_documents/DWH_IR/reports/dwhfinal.pdf.

145. CTR. FOR CATASTROPHIC RISK MGMT., FINAL REPORT ON THE INVESTIGATION OF THE MACONDO WELL BLOWOUT 5 (2011), *available at* http://ccrm.berkeley.edu/pdfs_papers/bea_pdfs/dhsgfinalreport-march2011-tag.pdf.

146. *Id.*

147. Pierre Thomas et al., *BP's Dismal Safety Record*, ABC NEWS (May 27, 2010),

refineries in Ohio and Texas accounted for 97% of the “egregious, willful” violations recorded by the U.S. Occupational Safety and Health Administration (OSHA).¹⁴⁸ These violations are determined when an employer demonstrates an “intentional disregard for the requirements of the law, or showed plain indifference to employee safety and health.”¹⁴⁹ Ultimately, this abysmal health and safety record was the responsibility of the BP Board, which had focused on cost cutting and profitability for too long, neglecting fundamentals that caused this disaster.

In another contemporary illustration of a hitherto highly respected international company confronting disaster because of its neglect and defiance towards essential environmental standards, in September 2015, VW admitted to installing software in 11 million car engines over several years that allowed the cars to pass regulators laboratory emissions tests, but belched out toxic nitrogen oxides when travelling normally on the road. As VW faced a litany of fines, lawsuits and recall costs, its reputation for engineering excellence and environmental responsibility was the subject of ridicule. This flagrant abuse of environmental standards was ultimately a result of lax board of director controls and a paternalist corporate governance culture described in Germany as “uniquely awful.”¹⁵⁰ After seeing the company lose over a third of its market capitalization in a matter of days, the company announced it would set aside \$7.3 billion dollars, the equivalent of six months profits, to cover the costs of making its cars comply with pollution standards. The carmaker had become the most successful in Europe as the result of its “clean diesel” advertising, and the diesel engines that were affected by the fraud accounted for half of its sales. The outgoing CEO Martin Winterkorn announced too late that the company would introduce twenty new hybrid or all-electric vehicles by the year 2020.¹⁵¹

These corporate disasters by companies formerly regarded as leaders in their sectors are a salutary warning to other corporations to be alert to the very real hazards they will face with the onset of climate change if they neglect their social and environmental duties. Sarah Barker convinc-

<http://abcnews.go.com/WN/bps-dismal-safety-record/story?id=10763042>; Tim Webb, *WikiLeaks Cables: BP Suffered Blowout on Azerbaijan Platform*, GUARDIAN (Dec. 15, 2010), <http://www.theguardian.com/world/2010/dec/15/wikileaks-bp-azerbaijan-gulf-spill>.

148. Thomas et al., *supra* note 147.

149. *Id.*

150. Chris Bryant & Richard Milne, *Boardroom Politics at Heart of VW Scandal*, FIN. TIMES (Oct. 4, 2015), <http://www.ft.com/intl/cms/s/0/e816cf86-6815-11e5-a57f-21b88f7d973f.html#axzz3osEx8DSE> (available with subscription only).

151. Jack Ewing, *Volkswagen Says 11 Million Cars Worldwide Are Affected in Diesel Deception*, N.Y. TIMES (Sept. 22, 2015), <http://www.nytimes.com/2015/09/23/business/international/volkswagen-diesel-car-scandal.html>.

ingly argues this point in an Australian legal context—which has similar implications for other jurisdictions—stating there will be no safe harbor in the future for the irresponsible director:

[E]ven where directors' subjective bona fides are not in question, passivity, reactivity or inactivity on climate change governance is increasingly likely to contravene the duty of care and diligence under section 180(1) of the Corporations Act, and increasingly unlikely to satisfy the 'business judgment rule' defence under section 180(2). This includes governance strategies that emanate from climate change denial, a failure to consider its impacts due to ignorance or unreflective assumption, paralysis caused by the inherent uncertainty of its magnitude and timing, or a default to a base set by regulators or industry peers. In addition, even considered decisions to prevail with 'business as usual' are increasingly unlikely to satisfy the duty (or the business judgment rule defence)—particularly if they are the product of a conventional methodology that fails to recognise the unprecedented challenges presented by an erratically changing climate. In addition, whilst unorthodox, it is reasonably arguable that a failure to actively consider the impacts of climate change may also breach the duty to act in good faith in the best interests of the corporation under section 181. Accordingly, directors who do not proactively respond to the commercial risks and opportunities of climate change, now, may be held to account under the Corporations Act if corporate value becomes impaired into the future.¹⁵²

Mark Carney, from a Bank of England and Financial Stability Board perspective, starkly set out the implications for the resources industries of the IPCC's estimate of a carbon budget necessary to limit global temperature rises to two degrees above preindustrial levels: a carbon budget that amounts to between one-fifth and one-third of the world's proven reserves of oil, gas and coal.¹⁵³ Carney states:

If that estimate is even approximately correct it would render the vast majority of reserves "stranded"—oil, gas and coal that will be literally unburnable without expensive carbon capture technology, which itself alters fossil fuel economics.

The exposure of UK investors, including insurance companies, to these shifts is potentially huge.

152. Barker, *supra* note 38, at 4.

153. IPCC 2014 CLIMATE CHANGE: IMPACTS, ADAPTATION, AND VULNERABILITY, *supra* note 3, tbl.2.2.

19% of FTSE 100 companies are in natural resource and extraction sectors; and a further 11% by value are in power utilities, chemicals, construction and industrial goods sectors. Globally, these two tiers of companies between them account for around one third of equity and fixed income assets.¹⁵⁴

Yet, there is the other side of the ledger if corporations are astute enough to realize it. “On the other hand, financing the de-carbonisation of our economy is a major opportunity for insurers as long-term investors. It implies a sweeping reallocation of resources and a technological revolution, with investment in long-term infrastructure assets at roughly quadruple the present rate.”¹⁵⁵

The reality is that if all business does not face up to the enveloping threats and opportunities of climate change, carbon intensity will continue to increase towards the IPCC projected worst case scenario at 4% of global warming. Undoubtedly, that will precipitate the nonlinear compounding of climactic catastrophes that will endanger civilization, let alone business survival. As Figure 3 indicates, a rate of decarbonization is required to keep global warming below 2% that will demand virtually zero-carbon emissions by the end of the century—a goal that will require comprehensive commitment from corporations and directors.

154. Carney, *supra* note 32, at 11.

155. *Id.*

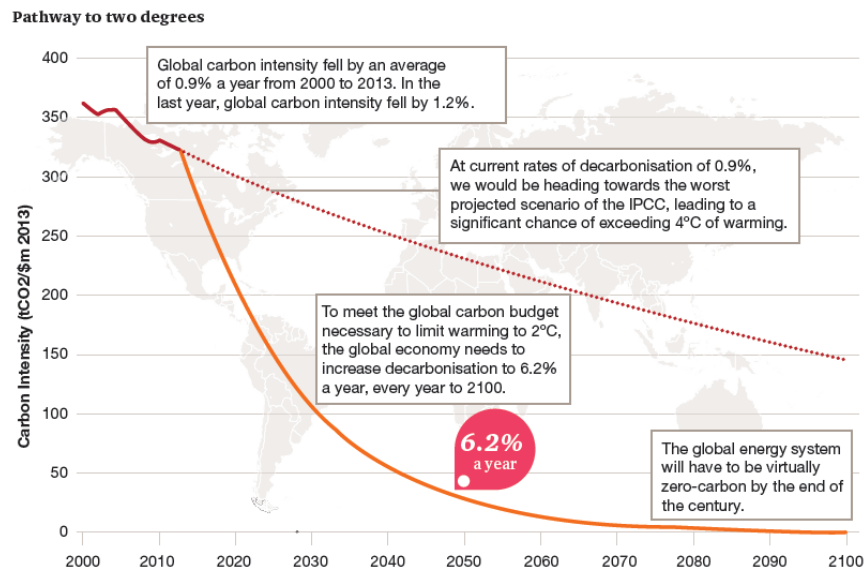


Figure 3: Reducing Carbon to Zero Emissions by the End of the Century¹⁵⁶

CONCLUSIONS

We all have to face the inordinate economic and social risks of climate change. Such risks include the dangers of increased flooding and storm damage, altered crop yields, lost productivity, increased crime, damaged public health, and strained energy systems.¹⁵⁷ Henry M. Paulson, who as the U.S. Secretary of the Treasury had to negotiate the risk of the global financial crisis, is now co-chair with Michael R. Bloomberg of the Risky Business Project, an environmental consultancy. He is also helping others to get the climate change message across: “I know a lot about financial risks—in fact, I spent nearly my whole career managing risks and dealing with financial crisis. Today I see another type of crisis looming: A climate crisis. And while not financial in nature, it threatens our economy just the same.”¹⁵⁸

156. PRICEWATERHOUSECOOPERS LLP, TWO DEGREES OF SEPARATION: AMBITION AND REALITY, LOW CARBON ECONOMY INDEX 2014, at 3 (2014), available at <https://www.pwc.co.uk/assets/pdf/low-carbon-economy-index-2014.pdf>.

157. See generally TREVOR HOUSER ET AL., ECONOMIC RISKS OF CLIMATE CHANGE: AN AMERICAN PROSPECTUS (2015).

158. RISKY BUSINESS, A CLIMATE RISK ASSESSMENT FOR THE UNITED STATES 9 (2014), available at http://riskybusiness.org/site/assets/uploads/2015/09/RiskyBusiness_Report_WEB_09_08_14.pdf

There are alternatives to waiting for disaster to happen, and building a circular economy now is one of them. Presently we have a linear economy in which we extract resources at an ever-increasing pace, and having made them into products then dispose of them wastefully. A circular economy is designed to be waste-free at every stage and resilient by design; innovative, and restorative of ecosystems. This creativity is technically feasible, but what is required are the supporting institutions and values. Businesses can succeed while exercising ethical values, respecting people and communities, and sustaining the natural environment. This requires comprehensive responsible policies, practices, and programs fully integrated into business operations, incentive systems, and decisionmaking. The Global Compact defines corporate sustainability as “a company’s delivery of long-term value in financial, social, environmental and ethical terms.”¹⁵⁹ This is a good working definition for future endeavours.

159. UNITED NATIONS GLOBAL COMPACT, GUIDE FOR GENERAL COUNCIL ON CORPORATE SUSTAINABILITY 7 (2015), available at https://www.unglobalcompact.org/docs/publications/Guide_for_General_Counsel.pdf.