**Corporate Social Responsibility. Institutional and Organizational Perspectives**

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**Developing Global Institutional Frameworks for Corporate Sustainability in the Context of Climate Change: The Impact Upon Corporate Policy and Practice**

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**Introduction**

This chapter examines the rapidly developing global institutional frameworks for corporate sustainability occurring in response to imminent climate change. Corporations bear a heavy responsibility for the emissions of the greenhouse gases that have caused the process of climate change (Heede 2014). Corporations now need to engage fully and responsibly in the urgent tasks of adaptation and amelioration required to remedy the damage caused by their earlier externalisation of the costs of emissions and other pollution, and reach for the objective of eliminating future carbon emissions. Together with governments, institutions, and communities, corporations can work for a more sustainable future. Guiding and facilitating this immense paradigm shift in corporate sustainability is a vast framework of international and civil institutions focusing on different elements of the transformation process. Firstly the chapter examines the extensive impact of climate change now being endured and to come, and the heavy consequences for the economy and society. The resulting widening scope of corporate directors’ duties in this more dangerous context is considered. Finally the remarkable burgeoning of international institutions and agencies advising and monitoring corporations on climate change, carbon disclosure, responsible investment, and integrated reporting are examined. Emerging from this analysis is a powerful sense that the intensifying institutional effort to attain sustainability will exert an irresistible impact upon corporations to deliver social and environmental responsibility both substantively and verifiably.

**The Impact of Climate Change on Institutional Paradigms**

The great weight of scientific evidence accumulated by successive reports of the IPCC, and a multitude of other scientific projects and policy reviews, brought recognition of the seriousness of the challenge facing humanity and the environment, and the need for deep cuts in global emissions, but a prolonged apparent incapacity to reach agreement on how this policy might be effectively and equitably implemented across the planet, as manifest in the limits of the 2009 Copenhagen *Framework Convention on Climate Change* (United Nations 2009). Following extensive rounds of international negotiations over four years in preparation for the 21st Session of the Conference of the Parties to the United Nations FCCC (COP 21) in Paris in November 2015 a total of 196 countries reached an historic moment in global diplomacy with a universal climate agreement more rigorous and ambitious than conceived possible earlier. The agreement aims to substantially “strengthen the global response to the threat of climate change” while maintaining sustainable development and efforts to eradicate poverty (United Nations 2015:22). Critically the agreement commits to more demanding long term mitigation efforts in Article 2 (a):

“Holding the increase in global temperatures to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change” (United Nations 2015:22).

Reinforcing this commitment is the agreement to a robust transparency framework for emissions reductions with common accounting standards, national reporting, and independent expert review. The agreement establishes binging commitments of all parties to make “nationally determined contributions” (NDCs) and to pursue the necessary domestic emissions reductions measure to achieve these. In addition to annual reporting, every five years countries are expected to develop new NDCs that represent a significant progression on previous targets (Centre for Climate and Energy Solutions 2015). While it is possible that some countries may breach the caps on emissions, over time there is the possibility of negotiating to renew and increase emissions reductions.

The momentous diplomatic breakthrough achieved in the 2015 Paris Agreement, together with the substantial 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.” Kuhn explains that “the 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” (Kuhn 1996:34). 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.

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, 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. That is, the intervention to repair climate change is beyond the usual business cycle, political cycle, or horizon of regulators and other authorities. 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 (Carney 2015).

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 cli-mate 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 (Carney 2015:6).

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. 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 (Bank of England 2015; Munich Re 2015).

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 (Barker 2013:9). 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 adaption 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 minimizing vulnerability to environmental shocks and enhancing resilience (Barker 2013:10).

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 inter-connectedness. The dramatic climactic discontinuities caused by climate change “may give rise to cascading risks of potentially unforeseeable magnitude.” 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:

“Although 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’ ” (Godden 2013:238).

As Godden et al. go on to argue:

“Climate 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” (2013:241).

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.

**Figure 1 : The Widening Scope of Director’s Duties : The Increasing Impact of Social and Environmental Responsibility**

**Compounding International Social and Environmental Initiatives**

The UN 2015 *Framework Convention on Climate Change* agreed in Paris represents the summit of two decades of compounding international social and environmental initiatives, and continuous, if often halting, institution building. Bringing together the leaders of 196 nations and striking an agreement described as “The World’s Greatest Diplomatic Success” (*Guardian* 14 December 2015) in which all countries participated equally, and in which the divisions between developed and developing countries which had stalled earlier negotiations were at least temporarily overcome, was a signal achievement built upon years of preparatory policy work.

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” (UN 1999). The United Nations accepts that “corporate sustainability starts with a company’s value system and a principled approach to doing business” (UN Global Compact (2014). 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. The ten principles of doing business proposed in the Global Compact involve fundamental responsibilities in the areas of human rights, labor, environment, and anti-corruption. The principles are derived from the UN’s *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” (UN 2010). The United Nations sees the commitment to these principles coming from the top:

“Whereas the importance of chief executive commitment to sustain-ability 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” (UN Global Compact 2013: 9).

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* (UN, 2015b) established in 2000, a new agenda of seventeen *Sustainable Development Goals* with 169 associated targets were agreed to, representing a universal policy for sustainable development that included:

“Making 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 move towards more sustainable patterns of consumption and production” (UN, 2015c).

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 (2014) 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. Rasche and Waddock (2014) 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. 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.

The United Nations *Principles of Responsible Investment* (PRI) is an investor initiative in partnership with the UNEP Finance Initiative and the Global Compact (PRI 2015a). Founded in 2006, the PRI has recruited 936 signatories 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) (Hebb et al 2016).

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 De-carbonization Coalition (PRI 2015b).

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 not require specific quotas of socially and environmentally responsible companies within their investment portfolios” (Miles 2012).

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 (GRI 2015a). Over 3,000 experts from business and civil society participated in the development of the G3 reporting guidelines in 2006 in a multi-stakeholder 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 (GRI 2010). 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 (GRI 2013).

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 impact (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” (GRI 2015b:4)

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 (Hsu 2013).

A large consortium of agencies combined together in the effort to progress a proposal for integrated reporting (IRRC 2011). 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. 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, 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” (IIRC 2015:6).

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 multi-stakeholder 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 (Thurm 2013). 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 (Leinaweaver (2015).

**Institutional Transformation: The Imperatives of Sustainability**

There are hundreds of climate change and sustainability 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 (Carney 2015:14).

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.

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 (2012) *A Theory of Fields,* which conceives how the commitment of skilled people may upset established routines and build new political and organizational fields. 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 meteorologists, engineers and life scientists and engineers, 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 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 (Hart 1995). 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 (WEF 2014). The European Commission has 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” (European Commission 2015a:3; 2015b)

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**Strategic Environmental Key Business Capability Driver Resource Advantage \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Pollution** Minimize emissions, ContinuousLower **Prevention** effluents and waste improvement costs **(1900s-1980s)**

**Product** Minimize life-cycle Stakeholder Pre-empt **Stewardship** cost ofproducts integration competitors  **(1980s-2000s)**

**Sustainable** Minimizeand eliminateShared vision Future Position **Development** environmentalburden of Circular economy **(2000s-2060s)** firm growth

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**Table 1: A Natural Resource-Based View of the Firm**  (Source: Adapted from Hart 1995)

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 responsibility that have driven collaborative business action for responsible business practices

**Conclusions**

The fact that these initiatives are having traction with companies internationally is illustrated by the continuing increase in the companies that implement and report their greenhouse gas emissions, water management, and climate change strategies. Collectively, this huge and multifaceted effort by both business and civil society, by all the agencies and initiatives discussed, represents a great advance in the campaign for corporate environmental, social, and governance responsibility. 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 decision making. The UN Global Compact (2015d) defines corporate sustainability as “a company’s delivery of long-term value in financial, social, environmental and ethical terms.” This is a good working definition for future endeavours. The commitments to eco-efficiency and the circular economy are growing, that is “to embrace practices that start to decouple economic growth, human development, and well-being from negative environmental and social impacts.” (WBCSD 2010:2; 2015; European Community 2015a; 2015b) 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 and sustainability.

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