

BEYOND COMPLIANCE: SUSTAINABLE DEVELOPMENT, BUSINESS, AND PROACTIVE LAW

By
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INTRODUCTION

“Building a vision of international society as it might be if it were governed by sustainability involves being bold, both intellectually and philosophically. It starts by unlocking the complex relationship between power, authority, rules and norms.”¹

Chief executives from the world’s largest corporations recently identified sustainable development² as the most significant issue facing their organizations. This finding was presented in a joint study published by Accenture and the United Nations Global Compact in 2013.³ Over the past two decades, corporations gradually begun to internalize sustainable development. This transition has been motivated by the growing influence of social and moral values associated with Corporate Social Responsibility (CSR).⁴ Although not without failure, the business sector has become a driving force behind sustainability initiatives, and today, corporations are more willing to embrace the concept of sustainable development as a strategic goal.⁵ While this is a welcome change, business practices in the sustainability area are frequently limited to economically justifiable projects. For instance, corporate environmental efforts focus largely on technical operations, such as reducing the use of virgin materials, using ecologically efficient production methods, pollution prevention, eco-friendly product design and packaging, and waste management. Companies are adopting environmental management programs that are technologically feasible and save costs.⁶ Some undertake environmental or philanthropic projects for their publicity value in the hopes of gaining legitimacy and attracting new customers.⁷ Such technical efforts are indeed substantive steps toward sustainability, however it is equally clear that companies are reluctant to make large-scale, risky investments in sustainability ventures that would fundamentally transform corporate strategies and operations⁸ and in the meantime environmental and social conditions continue to worsen.⁹

Management literature¹⁰ and other scholarly work in the field of law and sustainability show that the existing framework for sustainable development is insufficient, cautious, incremental, and incomplete.¹¹ Proposals for improvements call for sustainable development law to be more “hard” and enforceable. Others propose an adaptation of new legal mechanisms, commonly grouped together under the umbrella term “New Governance.”¹² Such mechanisms underscore the hybrid nature of sustainability through a polycentric, multi-level approach.¹³

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Thus, given the conflicts between a firm's sustainability strategy and lackluster regulatory structure, each side has come to accept the status quo. Yet the status quo is a direct result of the systemic failure to recognize the potential for a synergistic relationship between the private and public sectors to create a comprehensive, yet effective, regulatory framework.¹⁴ This article aims to engage law, science and sustainable business to determine the best way to effect this change and develop a regulatory structure based on Proactive Law. The article analyzes the current legal framework and explains why businesses act out of self-preservation when creating a sustainable economic development strategy.

Part 1 of this Article introduces the concept of Proactive Law and its relevance to sustainable development. Part 2 defines the sustainable development paradigm and briefly summarizes its historic development. Part 3 identifies corporate sources of ecological crisis and environmental degradation and provides examples of the private sector's embrace of the sustainable development concept. Part 4 presents an overview of the current state of national and international sustainable development law and its shortcomings. It then surveys proposals in the "New Governance" literature to address some of the deficiencies of the traditional legal system and how they apply to sustainable development. Finally, this part analyzes Proactive Law as a novel and complementary approach and provides examples for its practical application to sustainable governance in the business sector. Part 5 concludes.

I. THE CONCEPT OF PROACTIVE LAW

A. History and broad application

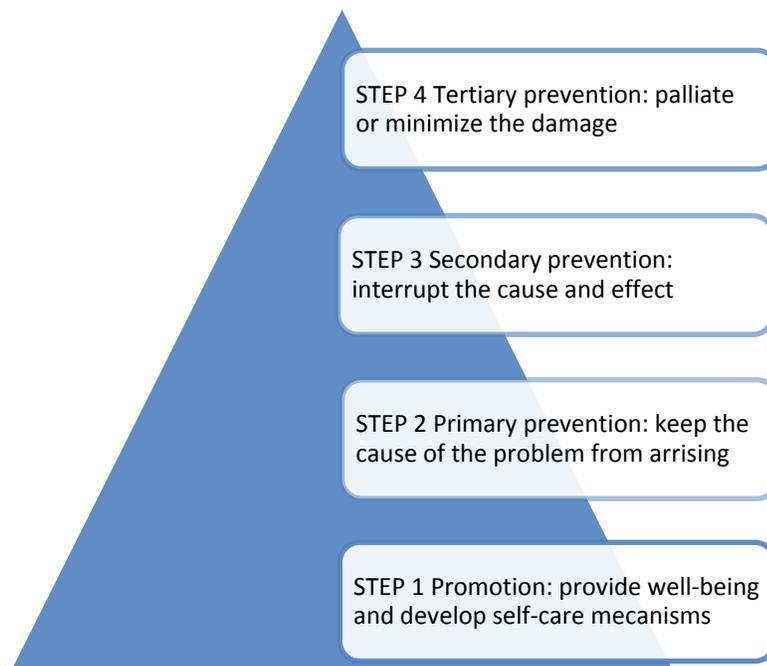
Proactive Law originated in Scandinavia in the late 1990s, in an effort to improve the contracting process.¹⁵ Contract law remains the principle focus and field of application for the concept.¹⁶ Proactive Law has been extended across Europe to a variety of disciplines, including risk management, contract economics, tax law, outsourcing and information technology. Proactive Law differs from traditional adversarial legal concepts, command-and-control based concepts, and state-centered regulation. Proactive Law regards the law as an enabling instrument, which fosters the creation of economic value and successful relationships. This is in rather sharp contrast with traditional perspectives, which typically consider the law to be a constraint on companies and individuals, mandating compliance without regard to cost or administrative burden. At best, traditional perspectives view the law as means to protect against harmful behavior of others.¹⁷

One of the main objectives of Proactive Law is to prevent problems and litigation, and to use the law as a lever to create value for the company, the individual or society at large.¹⁸ Proactive Law challenges traditional notions of the law that rely upon a failure-oriented approach to law. Proactive law advocates for a paradigm shift from a system based on rationality, separation and power to one of understanding, integration and accommodation.¹⁹ The concept is deeply grounded in Scandinavian legal realism, where the law pursues socially useful goals and takes into account the economic and social consequences of court decisions.

Proactive Law builds on the concept of Preventive Law, developed in the 1950s in the United States.²⁰ Preventive law seeks to avoid legal disputes by attempting to predict human behavior, emphasizing conflict management, embracing risk and making preventive legal services available to clients. Preventive Law is premised on the assumption that the most successful medical treatment is prevention, and seeks to apply this common assumption from a

medical to a legal context through a three-step preventive legal strategy.²¹ To these principles Proactive Law adds a fourth, promotive, enabling dimension, seeking value creation for all stakeholders involved in the legal relationship, or in analogy to preventive/promotive medicine, provide well-being and develop self-care mechanisms to clients.

Figure 1: The Four Steps to Legal Health²²



The importance of the proactive law approach was recently recognized by the European Union, in the Opinion of the European Economic and Social Committee (EESC) on “The proactive law approach: a further step towards better regulation at EU level,” published in 2009.²³ However, the adulation received little attention in United States legal literature, with the notable exception of an article in 2010 in the ABLJ. The article introduces the concept to the American corporate culture as a mechanism for companies to utilize the law to gain competitive advantage.²⁴ While Siedel/Haapio’s work concentrates on the use of Proactive Law for corporate strategic purposes and focuses on contracting, this Article seeks to make the Proactive Law approach useful and fruitful for regulating enterprise sustainability, and to integrate Proactive Law with existing New Governance theories to develop strategies for sustainable governance in the business sector.

B. Relevance to Sustainable Development

“Proactivity,” is a common element of sustainable management and Proactive Law. Studies show the value of proactive corporate strategies against global warming²⁵ and evidence that firms that adopt proactive environmental management strategies become more efficient and competitive.²⁶ Stakeholder activism and the recognition of the social (and ecological) embeddedness of the economy are the reason for corporations “increasingly adopting

organisational features designed to promote proactivity over mere reactivity in their stakeholder relationship.”²⁷ Similar to the corporate stakeholder perspective, which is based on practical considerations,²⁸ Proactive Law is equally outcome-oriented. Under Proactive Law theory contract partners, for example, work together in contract drafting – the original field of application for proactive legal strategy - to achieve a common business goal instead of focusing on securing their own interests by legal means.²⁹ With regard to sustainability, this approach would be particularly useful in international treaty negotiation and to bridge the divide between the three competing elements of sustainable development: ecology/environment, economy/employment and equity/equality.³⁰

Proactive Law emphasizes conflict prevention rather than allocating responsibility after a problem has occurred.³¹ Given the irreversible impact of ecological crises, prevention is the only option for some ecological problems. Reactive cure is either impossible or too expensive. The interdependence of ecological, social, technological systems makes it hard to pin responsibility on one or a few entities. All actors are responsible and need to collaborate in order to prevent ecological crises and promote sustainable development.

These are only a few examples of the parallels between Proactive Law and the sustainability concept. The concepts are similar in that they embrace other vectors than the law.³² The four steps to legal health as illustrated in Figure 1 could equally be applied to sustainable development. Proactive Law offers a promising perspective on how a different approach to law can promote sustainability and help preventing ecological disasters instead of allocating responsibility when it is too late. In the remainder of the paper, we will analyse how both concepts can be combined to advance sustainable development through proactive regulation. To support this analysis the following sections give a short overview of the sustainability paradigm and the current state of the legal framework and its shortcomings.

II. BACKGROUND ON SUSTAINABLE DEVELOPMENT

There is not an authoritative legal definition of sustainable development. The absence of this definition is sometimes seen as a contributing factor to its delay in effectively addressing environmental, social, and economic concerns.³³ The word sustainability or sustainable development is ubiquitous, and like any overused term, is in danger of being watered down, misused, abused, and losing its original meaning.³⁴ Various approaches to sustainable development exist and different communities employ the term with different meanings depending on the conditions and settings of where it is used.³⁵

It is beyond the scope of this Article to attempt to define sustainable development. It might not even be possible or desirable to find a clear, static, and universal understanding of the term.³⁶ Like democracy, globalization or justice it is an evolving and disputed concept.³⁷ But, in order to better understand its significance, it seems helpful to retrace the term’s historic roots, differentiate between sustainability and sustainable development, and try to clarify its meaning in a way that makes it workable for developing our regulatory approach later in this Article.

A. A Short History of the Sustainability Paradigm

Modern concern for the environment began with preservationists who advocated that parts of the natural environment should be entirely sheltered from any human intrusion.³⁸ In contrast to this view, a competing view of environmentalism, termed the conservationist

movement, emerged advocating that nature should be protected but largely for human use. In this view nature does not itself have a value; rather, instead it is valuable because humans can harness it for their use and enjoyment.³⁹

This dichotomy was the precursor for further alternative views of the environment, which arose during the twentieth century. The preservationists emphasized that environmental degradation could be addressed only by fundamental changes in modern cultural values and advocated for preservation policies.⁴⁰ The conservationist perspective emphasized the belief that nature can be harnessed or managed. Technological optimists suggested that technology and innovation are the solution to environmental problems.⁴¹ Economists and other social scientists advocated collective policies to address environmental problems.⁴² Consequently, the theories articulate different perspectives on two important, yet diametrically opposed concepts: (1) the natural environment and modernity’s fundamental commitment to economic growth; and (2) how this divide should be addressed.

Preservationists prefer the term “sustainability” and believe that the phrase “sustainable development” is an oxymoron. Instead of altering the nature of development in the direction of greater ecosystemic sustainability, preservationist would prefer a fundamental realignment of cultural values and practices associated with development (e.g., accumulation and mass consumption).⁴³ Conservationists adopted the term sustainable development and place more emphasis on the changing of technological processes to accommodate growth and development in a manner compatible with the environment.

The Brundtland report was a watershed event because it set the stage for establishment of the current sustainable development paradigm. It was preceded by a number of environment and development discussions and treaties briefly listed in the table below.

Table 1: Pre-Brundtland Report Agreements on Environment and Development⁴⁴

1968	Biosphere , International Conference for Rational Use and Conservation of the Biosphere by UNESCO
1972	Conference on Human Environment , the historical Conference on Human Environment held in Stockholm in June 1972
1975	CITES , the convention on international trade in endangered species of flora and fauna was signed on March 3, 1973 in Washington.
1976	Habitat , the first global meeting to link human settlement and the environment was held to highlight the problems faced due to an increase in the population.
1981	World Health Assembly adopts a global strategy for health for all by 2000.
1984	The International Conference on Environment and Economics (OECD)
1987	Montreal Protocol on Substances that Deplete the Ozone Layer
1988	The Intergovernmental Panel on Climate Change (IPCC) was set up to assess the technical issues in climate change.

The Brundtland Report assumes that concern for the environment and economic development are indeed compatible. Not only does it see environmental concerns and economic development as compatible, it legitimizes growth in economic activity as essential.⁴⁵ It also illustrates the feasibility of win-win solutions that are good both for the environment and for economic growth—at least in the early stages. The reason for this seemingly counterintuitive conclusion is that adoption of the sustainable development perspective enabled the Commission to reconcile another dispute that pitted environmental advocates against those concerned about human development and poverty in less developed areas of the world.⁴⁶ While environmentalists' greatest concern centers on overdevelopment, advocates for impoverished people and countries around the world are most concerned about underdevelopment. The Brundtland Report represents a compromise among these three competing concerns—economic, environmental, and human welfare.

B. The “Three E’s” of Sustainability

The Brundtland report synthesizes sustainability in terms of the “Three E’s: ecology/environment, economy/employment and equity/equality.”⁴⁷ Ecology is already embedded in the idea of sustainability. The sustainability movement explicitly asserts that economic development and employment opportunities are not antithetical to environmental concerns. Consequently, the movement extends sustainability to include social concerns over how environmentally sensitive development can be managed to enhance global equity and equality of material well-being. Sustainability also incorporates political and cultural concerns in economic development, but to a lesser extent than their primary focus. It supports development processes that preserve and respect longstanding diverse cultures, foster development at a human-scale, and are conducive to politically stable democracies.⁴⁸

Companies often perceive sustainability as a way to implement CSR.⁴⁹ As such, the three legs of sustainable development—economy, social equity, and environment—become part of corporate strategy.⁵⁰ The so-called “Triple Bottom Line” becomes a tool for evaluating the impact of corporate actions on different stakeholders and also makes the sustainable development concept translatable for corporations.⁵¹ As part of a company’s broader CSR initiative, concern for the environment can go beyond cost reduction through technical improvements, such as reducing the use of raw materials, using ecologically efficient production methods, pollution prevention, eco-friendly product design and packaging, and waste management.

For purposes of this Article, we define sustainable development as development that balances economic development, social equity, and environmental protection—the three competing interests articulated in the Brundtland Report. Our analysis emphasizes the importance of regulation of economic activity and its ensuing impact on the environment. However, we recognize that the sustainability concept can be much broader and is far from being limited to business activity. This article generally favors the term sustainable development over sustainability. This preference underscores the dynamic nature inherent to legal measures advancing sustainability goals and helps differentiate sustainable development from environmental protection, which is more static, often preservationist, and restrictive in nature.⁵² With that said, sustainability is used to describe a status quo or goal to be achieved.

III. BUSINESS AND SUSTAINABLE DEVELOPMENT

Business activity is one of the most significant sources of environmental degradation and is thus at the forefront of regulatory activity concerning sustainable development. To support the analysis of the legal framework for sustainable development in part IV, the following section outlines the significance of economic activity and the business sector as 1) source of environmental degradation and 2) key player in sustainable development.

A. Economic Activity as Source of Ecological Crises

Industrialization, and its ensuing economic activity are frequently cited as a cause of environmental pollution. The association results from levels of carbon emission.⁵³ Excessive carbon in the earth's atmosphere is responsible for global warming, which in turn causes many harmful effects to agriculture, sea levels, and disease vectors.⁵⁴ For instance, over the past decades atmospheric carbon has increased proportionally to economic production. Data shows that carbon in earth's atmosphere reached a concentration of 387 parts per million (ppm) in 2010 and prior to 1850, it had remained steady at around 180ppm. Despite private and public efforts to protect the environment, future Gross Domestic Product (GDP) estimates increasing rely on products and services that are even more carbon intensive than in the past.⁵⁵

The rise in ecological degradation has been accompanied by a simultaneous increase in the scale and seriousness of business-based, ecological crises. For instance, the 1984 Bhopal disaster, deemed the worst industrial accident in history, left nearly 10,000 people dead, and injured more than 50,000.⁵⁶ Other examples of regional ecological crises are exemplified by toxic waste sites (e.g., Love Canal, Seveso, and Times Beach), urban pollution in most major cities (e.g., Beijing, Mexico City, New Delhi, and Cubatao), and water pollution (e.g., Aral Sea, and The Ganges). Localized ecological crises with far-reaching international ramifications have been triggered by nuclear accidents (e.g., Three Mile Island in 1979, Chernobyl Nuclear Accident in 1986, and Fukushima Reactor Meltdown in 2011), and industrial and transportation accidents (e.g., NASA Challenger disaster, Exxon Valdez oil spill, and BP oil spill).

The industrial crises of the past have revealed the immensely interdependent nature of corporate industrial systems. Industrial accidents occur in highly complex socio-technical systems. These systems have thousands of component parts and subsystems, creating a complex system beyond the comprehension of even the systems' designers. These systems are highly dependent on one another, as well as environmental conditions, and human interventions. Many components of the system are riddled with unreliability, scientific uncertainty, and beyond the control of a business.⁵⁷ When an error occurs within some small subsystem it transmits rapidly throughout the system leading to a major crash and significant damage to the environment and human life.⁵⁸ These interdependent systems have been insufficiently addressed by both business and law, because they require significant legal and technical expertise.

B. Business-Wide Sustainable Development Initiatives

In addition to the causal link between corporations and environmental degradation, the private sector controls a significant amount of natural and financial resources.⁵⁹ Thus, the nature and extent of the involvement of the private sector will determine the success or failure of sustainable development initiatives. While initially driven by a need for compliance with

environmental laws such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)⁶⁰ during the 1970s and 80s, environmental concerns of the 1990s became engrained in corporate “environmental management” policies, “sustainability” practices and risk management. Insurance companies, customers, and investors wanted clarity and explicitness on environmental stakes and risks. The business sector began considering environmental outcomes in the context of their corporate strategies, and began public reporting on their social and environmental performance. In 1992, the Security and Exchange Commission (SEC) began requiring U.S. corporations to disclose environmental liabilities in their financial statements to shareholders but, contrary to isolated developments in Europe, continues to not require corporate sustainability reporting.⁶¹

One way to view businesses’ embrace of sustainable development is as part of a social movement in the broader global society. Many of the movements subsumed in the sustainable development paradigm (e.g., environmentalism, development economics, community supported agriculture, etc.) arguably have their roots in resistance to modernity. Sustainable development is a form of cultural resistance to late/postmodern societal conditions. In late/postmodern capitalism, economic activity was characterized by globalization, and an explicit understanding of environmental externalities. Globalization allows corporate actions to transcend both the national boundaries and national regulatory bodies. Investment capital, labor, goods and environmental problems can flow freely and rapidly from one region of the world to another. This mobility vastly extends corporations’ powers. Law-savvy companies can cleverly use disparities in national environmental laws to their advantage, though disparities in environmental regulation have vanished more and more over the recent years.⁶² Given the global impact of ecological disasters and environmental concerns, sustainable development calls for international solutions. Consequently, and contrary to other social issues, most regulatory activities have taken place not on the national but international level through international treaties and conventions. The effectiveness of these global regulatory initiatives, for reasons we will discuss below, remains limited.

The business sector has assimilated not only environmental concerns but related social concerns as well. Interactions between corporations and environmentalists are no longer mediated by governmental agencies. Some of the qualities of postmodern society that have empowered corporations, such as technology, transportation, and communication, have also empowered civil society to resist corporate impacts. For example, in the 1990s non-governmental organizations, such as Rainforest Action Network and Greenpeace, joined with indigenous peoples to stop MacMillen Bloedel from logging the old growth rainforest in Clayoquot Sound, British Columbia. The activists collaborated with MacMillen Bloedel’s customers, including News International, Kimberly Clark, and Scott Paper, which joined the effort because they feared that their own customers—i.e., end-user consumers—would boycott products made from old growth rainforests. These boycotts ultimately lead to negotiations between business and stakeholders and resulted in a more sustainable land-use and resource management decision-making process in Clayoquot Sound.⁶³

In a shrinking world marked by the closer proximity of all the world’s actors, it stands to reason that the sustainable development paradigm is sinking deeper roots in business.

In recognition of this fact, the UN Global Compact was established in 2000 to establish principles and guidelines to the business sector to proactively implement sustainable development. It serves as a platform for business and non-business entities to proactively network and engage in areas of human rights, labor, environment, anti-corruption and the UN

goal of sustainable development in 145 countries and with more than 10,000 participants. It formulated the UN Principles for Responsible Investing (UN-PRI) and the UN Principles for Responsible Management Education (UN-PRME). By voluntarily aligning business goals and operations with global sustainable development political goals, businesses are able to collectively analyze and foresee future social and ecological demands on them, and possibly forestall onerous regulation.⁶⁴ The Principles place companies in an anticipatory (as opposed to reactive) stance towards sustainable development.⁶⁵

To promote sustainable development in the absence of public regulation, the business sector has increasingly engaged in private law-making⁶⁶ through actions such as the adoption of corporate or industry-wide codes of conduct, clauses in supply chain contracts that relate to environmental or social standards,⁶⁷ and private-public law-making.⁶⁸ Some authors go as far as to suggest that “we are about to reach the sustainability “tipping point” — the point at which the idea of sustainable development becomes a strategic business imperative — driven not by regulation, but rather by pressure from virtually the entire spectrum of corporate stakeholders”.⁶⁹

IV. LAW AND SUSTAINABLE DEVELOPMENT

The current legal and regulatory framework governing sustainable development does not live up to its potential. This failure is evidenced by strategic, self-interested corporate decision-making, despite continuously worsening environmental conditions.⁷⁰

The following section begins by offering a broad survey of the current state of international sustainability law, with a specific analysis of the regulatory structures in the United States. The section then addresses criticisms of these structures and identifies avenues for reform.

A. The Current Legal Framework

Unlike other legal disciplines, the laws and regulations governing sustainable development are peppered across multiple practice areas, such as environmental and natural resources law, human rights law, corporate law, and economic and labor law. Most broad-based sustainable development lawmaking has taken place on the international level⁷¹ and in the area of environmental law.⁷²

1. International Sustainable Development Law

The effects of environmental degradation do not stop at a nation’s border. It is thus critical that this issue receive a cohesive, international solution.⁷³ Accordingly, a wide range of international and regional treaties and other agreements have been signed to address environmental issues on a cross-border basis. The most notable examples of international agreements include the Economic Commission for Europe Convention on Long Range Transboundary Air Pollution and its Protocols,⁷⁴ the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol,⁷⁵ the United Nations Framework Convention on Climate Change and its Kyoto Protocol,⁷⁶ the United Nations Convention on Biological Diversity,⁷⁷ and the Convention on International Trade in Endangered Species of Wild Fauna and Flora.⁷⁸ The sheer number and variety of international environmental conventions demonstrate the priority of

environmental issues to many countries. At the same time, this also illustrates the fragmented responsibilities in international environmental law.

Other aspects of sustainable development law are less prominent and cover isolated issues such as equal remuneration for men and women,⁷⁹ or are limited to non-binding documents.⁸⁰ Generally, the three pillars of sustainable development are addressed in different agreements, but rarely together in a binding treaty as suggested in the Brundtland report.⁸¹ Despite that international sustainable development law is more advanced than the domestic laws of most countries, the concept has not developed into “hard law” on the international level. In other words, there is no articulation of international law, which may be applied by courts of an individual nation to create an enforceable obligation for a private or public party.

The International Court of Justice (ICJ) is often-cited for its decision in *Gabcikovo-Nagymaros*. This decision concerning a dam project between the Republic of Hungary and the Slovak Republic acknowledges the concept of sustainable development. However, the ICJ refused to apply the concept with any legal force.⁸² In a more recent 2010 decision of a dispute between Argentina and Uruguay over common freshwater resources (and the impact of pulp mills on the river Uruguay), the ICJ acknowledged environmental impact assessment as an international obligation, but did not clarify the status of the concept of sustainability as a source of general international law. Furthermore, the ICJ did not determine that businesses had a legal obligation to consult with the public prior to the implementation of the project, despite the negative consequences on water quality, air pollution, odors, visual effects, public health, and local tourism.⁸³

The absence of international “hard law” can also be attributed to the fact that international environmental regulations only bind governments and do not create direct obligations or enforceable laws with respect to companies or individuals. Even worse, the obligations on governments are typically limited to vague declarations of intent and lack an effective system of enforcement. It should come as no surprise that international agreements impacting sustainable development ultimately fail to meet the expectations of their advocates and the public.

Another inherent problem of international treaties is that treaties take long to negotiate and often are not signed or ratified by all countries. Because treaties are a function of consensus, they almost always reflect a common minimum standard at the time they have been drafted. As a result, this standard is typically insufficient to resolve the issue, or it becomes outdated due to technical or scientific progress. A recent example is the Rio+20 Conference, which in June 2012 brought together representatives from more than 100 States. Rio+20 is viewed by many as a failure because it repeated twenty-year-old aspirational promises with no specific operational targets or enforcement mechanisms⁸⁴ and is only one of many examples evidencing the global action problem that the international legislator faces in the area of sustainable development law.

Due to the difficulties described above, there has been a noticeable shift from traditional international law instruments like binding treaties to voluntary soft law instruments. There has also been a shift in the importance of non-state actors (i.e. the private sector). These changing dynamics have led some to reevaluate, or at minimum the role of international law in this area.⁸⁵ Commentators have attributed this trend to “the high level of normative and analytical uncertainty, the complex nature of interrelated issues, and substantial costs associated with any meaningful policy effort.”⁸⁶ Reactions have been mixed. While some commentators find voluntary action and soft law to be more “in harmony with the cooperative spirit of climate change policy [or sustainable development law in general]”,⁸⁷ others criticize the lack of enforceable “hard” law.

2. Sustainable Development Law in the United States

In the United States, the Brundtland report was followed by a series of top-down federal environmental law-making aimed at cutting down on toxic waste, air and water pollution and improving air and water quality.⁸⁸ Results of these regulatory efforts include the National Environmental Policy Act of 1969 (NEPA),⁸⁹ the Federal Water Pollution Control Act (CWA),⁹⁰ the Endangered Species Act of 1973 (ESA),⁹¹ the Solid Waste Disposal Act (RCRA),⁹² the Clean Air Act (CAA),⁹³ and the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).⁹⁴

In parallel, and disconnected from the federal government's enactment of environmental laws, land development laws started to emerge at the state and local levels.⁹⁵ Zoning laws aim at procuring affordable housing while preserving the environment.

More recently, alarmed by the 2007 Intergovernmental Panel on Climate Change's (IPCC) assessment of scientific evidence relevant to climate change, the focus of the political debate has concentrated on climate change law.⁹⁶ As one commentator observed, all federal legislative proposals to date have failed, but state legislation, administrative agencies, and court decisions increasingly address climate change based on existing legislation or common law.⁹⁷

In its landmark case *Massachusetts v. EPA* the US Supreme Court held that the EPA had the authority to regulate Greenhouse Gas Emissions (GHGs) based on the Clean Air Act.⁹⁸ This decision enabled the EPA begin research ways to regulate GHGs. This initial research led to the recent publication of four major and interrelated climate regulations that form a nationwide system of carbon liability on regulated sectors.⁹⁹ *Massachusetts v. EPA* was followed by a number of decisions across the country where courts have considered climate change under existing environmental laws such as the National Environmental Policy Act, the Endangered Species Act, land use regulation or nuisance law.¹⁰⁰

However, as with international sustainable development law, an overreaching legal framework is missing because domestic law concentrates on the regulation of the environment and natural resources regulation. While there is an established, albeit dispersed body of "hard" environmental law, sustainable development at its current stage is rather an issue of government policy and "soft law." Governments, universities and companies establish mandatory sustainability policies for agencies like NEPA, but otherwise there is only a call for voluntary action, which lacks any judicial.

Also similar to international law, American law and its practitioners have not embraced the "Three E's" of the sustainability paradigm.¹⁰¹ A study from 2009, reveals that the United States Supreme Court has yet to employ the concept of sustainable development, despite regular decisions impacting environmental issues.¹⁰² The following section examines the challenges governance for sustainability poses.

B. Governance for Sustainability

Legal scholars have identified common reasons for the legal system's failure to address sustainable development more effectively, but disagree as to how to overcome them.¹⁰³ Early legal work describes sustainable development as a political philosophy or principle of governance,¹⁰⁴ and separately addresses subsets of the sustainability concept such as intergenerational justice, economic development, international trade and investment, labor law,

or human rights. Some commentators believe that sustainable development law is simply soft law—i.e., aspirations or policy that cannot be regulated by true, hard law¹⁰⁵—while others would like to abandon the concept altogether.¹⁰⁶

Generally, the “lack of specificity”,¹⁰⁷ inherent to the concept of sustainable development, which “allows various parties with potentially conflicting agendas to coexist under the same big tent,”¹⁰⁸ is seen as one of the main reasons for the law’s inability to address sustainable development coherently. While some authors call for a “thicken[ing]” of the concept “to promote an acculturation process that has real normative bite,”¹⁰⁹ others regard its flexibility and accommodation of seemingly conflicting interests as a beneficial policy-making tool.¹¹⁰

Scholars have identified a number of basic principles for sustainable governance, such as the precautionary principle, but have not outlined comprehensive regulatory approaches to sustainable development.¹¹¹ Nevertheless, as the protection of the environment is one “leg” of sustainable development, legal sustainable development scholars frequently rely on the environmental governance literature to describe regulatory strategies for sustainable development and propose avenues for improvement of what we would call “sustainable governance”.¹¹²

Through “sustainable governance” we understand the deliberate adjustment of practices of governance by international, national and state legislators, administrative regulators, and the courts to ensure that economic development proceeds along the principles of sustainable development.¹¹³ We use the terms sustainable governance and governance for sustainability interchangeably.

In the following section – based on the rich literature on environmental governance we identify three approaches to sustainable governance: traditional regulation (also called command-and-control regulation), market-based regulation, and New Governance. The advantages and disadvantages for each of these concepts have been extensively discussed in environmental law literature. Therefore, we will only briefly describe each of the concepts and its shortcomings, before introducing Proactive Law as a complementary approach in Part IV.¹¹⁴

1. Traditional Governance and Its Critics

Traditional governance, or command-and-control governance is top-down regulation.¹¹⁵ It relies upon the government, to compel businesses to adopt sustainability into its business decisions. Non-compliance typically results in civil or administrative fines, or criminal prosecution.¹¹⁶ Traditional governance uses two distinct regulatory mechanisms to enforce its goal: (1) require companies to use a specific, or best available, technology to reach pre-determined limits, or (2) control the degree of pollution through a permit system. Examples include catalytic converters in cars, air pollution permits,¹¹⁷ or the EPA’s Significant New Alternatives Policy (SNAP) program.¹¹⁸

Existing literature has heavily criticized the traditional approaches to regulating sustainable development.¹¹⁹ Criticisms mostly evolve around two aspects: inefficiency and insufficiency.¹²⁰ Traditional regulation relies heavily on the capacity and willingness of governments to regulate sustainable development, and in case of permit systems requires sometimes-heavy bureaucratic structures. Traditional regulation has been criticized for being static because it is based on the technology available at the time the regulation has been made, and does not necessarily reflect changing conditions or advancement in technology. Moreover, traditional regulation does not provide incentives for business to do more than required, like, for

example, search for innovative, more sustainable products or processes that could protect the environment and enhance a business's competitiveness.

2. Market-Based Regulation

Market-based regulation aims at discouraging environmental harmful activities through, for example, environmental taxes. Similar to traditional regulation, market based regulations are premised on current knowledge and technology and are not capable of quacking adapting to changing conditions. Market-based regulations also suffer from the fact that an actor can always simply pay the tax and continue the environmentally damaging activity. This mindset internalizes environmental costs and does not fundamentally change behavior.

In contrast to traditional regulation, market-based regulation relies on external actors or institutions, such as consumers or investors to exert economic pressure on business. This creates incentives for companies to use more sustainable processes or products. Mandatory information disclosure regimes, such as environmental impact reporting or food labeling requirements, are prominent examples.¹²¹

Ultimately, this mechanism remains questionable. Instead of the government, market-based regulation relies on external actors to exert pressure on companies without a guarantee that they will actually do so. Also, there is an inherent danger that the effectiveness of these regulatory programs could be watered down through misuse of, for example, labels, or reporting schemes for “greenwashing” purposes.¹²²

3. New Governance

Unsatisfied with the preceding two approaches to sustainable governance, legal scholars have come up with new ideas for alternative schemes. Though very different in nature and objectives, for the purpose of this overview we will categorize these innovative approaches as New Governance.¹²³

The New Governance scholarship seeks to address many of the shortcomings of traditional regulation as discussed above. New Governance proposes strategies that are flexible, integrative, consensus-oriented, pragmatic, bottom-up, participatory, outcome-oriented, and less dependable on bureaucratic structures and the public regulator in general.¹²⁴ New Governance is not limited to sustainable development, and actually—to our knowledge—has not yet specifically addressed sustainable development, but only environmental regulation. Besides environmental regulation New Governance scholars have written in areas such as public school reform, “problem-solving courts,” health care reform, workplace gender discrimination, equal protection, labor rights, community policing, community economic development, public law litigation,¹²⁵ and governing the global commons.¹²⁶ Although criticized for lacking differentiation,¹²⁷ a path-breaking article¹²⁸ by Orly Lobel identifies common traits in New Governance scholarship. Accordingly, New Governance is characterized by the following organizing principles, which in part, could be made instrumental to advance business sustainability: participation and partnership, collaboration, diversity and competition, decentralization and subsidiarity, integration of policy domains, flexibility and non-coerciveness (which Lobel calls “softness-in-law”), fallibility, adaptability, dynamic learning, law as competence and orchestration. With regards to sustainable governance of the business sector,

the focus of this Article, probably the most influential streams among the diverse approaches New Government has to offer are reflexive law and polycentric governance.¹²⁹

Based on reflexive law theory developed by German social theorist Gunther Teubner,¹³⁰ reflexive environmental law does not prescribe “green” technologies, fix pollution limits or propose standards for environmental outcomes; nor does it leave the solution of ecological concerns entirely to the market. Instead, it prescribes environmental goals for companies to achieve internally through reflection mechanisms relying on information and communication.¹³¹ Companies remain free to choose how to achieve these goals, and, ideally, goals are formulated flexible enough to adapt to changing circumstances over time and stimulate innovation.¹³²

Polycentric governance has been described as a regulatory system “characterized by multiple governing authorities at differing scales rather than a monocentric unit”.¹³³ Because of its decentralized nature it is predisposed to overcome global action problems associated with sustainable governance. Applying polycentric governance to sustainable development recognizes that “a single governance unit”¹³⁴ might not be able to cope with sustainability issues and that waiting for all actors to coordinate will have irreversible consequences. On the other hand, a decentralized system of polycentric governance risks to insufficiently address the hybrid nature of the sustainable development paradigm.

While acknowledging that these suggestions are of fundamental importance and wishing to highlight the positive role these lines of legal scholarship can play for sustainable development, the focus of this article is less on questions of regulatory design, but on the content of sustainable development law. Both, the new governance concepts mentioned above and the Proactive Law approach are complimentary with regard to sustainable governance. The following section suggests that effective sustainable governance should be proactive in its content orientation while using reflexive or polycentric mechanism for its technical legislative implementation.

C. A Proactive Approach to Sustainable Development Regulation

Proactive Law has been primarily used with business relationships,¹³⁵ but it has been suggested that the concept can be applied to other fields. Most notably, the European Economic and Social Committee’s Opinion in 2009 suggested that Proactive Law could positively influence EU regulation,¹³⁶ and since 2009, various regulatory initiatives in the EU evidence a proactive approach.¹³⁷

It is important to understand the extent to which Proactive Law and New Governance principles overlap, and how Proactive Law may address the challenges of governing sustainable development.¹³⁸ Each of these issues will be discussed in turn.

1. Stakeholder Participation, Problem-Prevention and Shared Expertise

To make regulation more effective, New Governance models typically rely on stakeholder participation at all stages of the legal process: from legislation and promulgations of rules to implementation and enforcement. In the same vein, Proactive Law fosters collaboration and shared understanding between stakeholders to achieve common goals, prevent problems and subsequent legal disputes. According to proactive legal theory early, involvement of stakeholders and their expertise can help prevent disagreement, disappointed expectations, and other problems from materializing.

Problem-prevention is crucial for environmental regulation. Once an ecological disaster has happened, it is too late. Subsequent litigation can only allocate liability, remediate financial loss, but cannot bring back human, animal, and plant life, or the beauty of nature.

Traditional regulation is reactive to preexisting problems, and does not effectively allocate responsibility or clarify roles for prevention efforts. Often, laws are drafted after technological failures happen. The hope is that they will avoid similar accidents from happening in the future. For example, the U.S. Emergency Planning and Community's Right to Know Act was enacted in 1984, one week after the Bophal disaster in India. It was followed by technological and operational transparency laws in many countries.¹³⁹ It now imposes on companies the obligation to file information about the chemicals used thus helping local authorities protect the public from chemical hazards,¹⁴⁰ but does not provide collaborative processes on how to prevent disasters from happening as a proactive approach would suggest.

The European Union Directive on safety of offshore oil and gas operations from June 12, 2013¹⁴¹ is an excellent example of a proactive regulation. This directive seeks to prevent ecological disasters and protecting worker's security. It requires member states to enact legislation that requires companies that operate offshore oil and gas platforms to "ensure that all suitable measures are taken to prevent major accidents in offshore oil and gas operations" and "are carried out on the basis of systematic risk management".¹⁴² To ensure that companies take these preventive steps the Directive couples the granting of operation licenses to the capabilities of applicants to meet the requirements.¹⁴³ The Directive is an example of Proactive Law because it forces companies to engage in the type of proactive self-interested risk assessment, which ultimately will benefit all stakeholders: the employees and the environment. Companies stand to benefit by reducing conflicts, mitigating reputational damages, saving on legal costs, and establishing a collaborative stakeholder network.

New Governance scholarship has noted that today's ecological problems are too complex to be resolved by the government alone.¹⁴⁴ Sustainable governance is not only about the environment but addresses immensely interdependent issues. It demands scientific, technical, business and social expertise. Who other than the regulated entities and concerned stakeholders themselves would better judge the impact a regulatory measure will have on their interests, and predict its potential influence on their behavior? A governance model that uses this expertise will not only be more effective, but also be better accepted by the regulated entities and thereby overcome enforcement deficits.

Bridging conflicting interests is inherent to the concept of sustainable development. To the extent that the sustainable development paradigm can be compared to a private contractual relationship, while each party pursues its own interests, the successful execution of the contract requires that both parties fulfil their obligations and collaborate to reach the common goals specified in the contractual document. The earlier and better the parties understand their interests and expectations, and the more they are involved with the drafting of the contract, the better the chances that the agreed upon goal that can actually be reached. Similarly, proactive regulation requires true, effective stakeholder participation during the entire regulatory process, and not limited to the drafting period. Transposed to sustainable governance this means implication of all stakeholders in the preparation and execution of regulation in order to overcome conflicting interests, set desired goals, align objectives, and create a shared vision that supports successful implementation from the onset.¹⁴⁵

A practical example of this collaborative stakeholder approach to sustainable governance is the Clayoquot Sound project mentioned above.¹⁴⁶ During the first 15 years of the dispute

principle stakeholders used several consultative and participatory processes to communicate their interests and stop MacMillen Bloedel from logging the old growth rainforest in Clayoquot Sound, British Columbia. However, solutions that ensured more equitable power sharing, came with formal changes to the land-use and resource management decision-making process in Clayoquot Sound. This assured that previously disempowered stakeholders such as first nations and activists received a more balanced negotiating position with corporations through the creation of an institutional mechanism. It allowed all parties to focus on developing solutions to the conflict rather than searching for ways to disrupt their opponents.

Though empirical research is needed to prove our hypothesis, we would expect this type of collaborative regulation to be better respected and more apt to overcome opposing interests than traditional command-and control based regulation.

2. Enabling, Empowering, and Partnership

Proactive Law emphasizes enabling and empowering users of the law.¹⁴⁷ Instead of reacting to having to endure oppressive top-down regulation, businesses and individuals should become active players in governance. The hypothesis is that by doing so, they would take responsibility for their behavior rather than blaming others, conditions, or circumstances for failures.¹⁴⁸ As it relates to the regulatory process, Proactive Law means self-regulation, co-regulation¹⁴⁹ and active participation that rises above mere consultation.¹⁵⁰ Proactive Law requires collaboration and partnership between government, business, and civil society in the law-making process. The idea is that this engagement in the legal process increases the chances that the regulated entities will actually follow the law, and eventually overachieve the standards that they have contributed to setting up (when, for example, more developed technology allows them to do so), instead of merely complying with the law, or worse, disregarding it.

A contemporary example of the empowering element of proactive governance for sustainability is the German Sustainability Code (GSC), which was launched by the German Council for Sustainable Development in 2011, and introduces a voluntary sustainability-reporting scheme for German companies.¹⁵¹ The GSC is the culmination of an unprecedented collective process between the German government, the business sector, and stakeholders.¹⁵² It was drafted by a council of experts and civil society representatives, the so-called Rat fuer Nachhaltige Entwicklung (RNE). While the RNE was established by the German government and its members are appointed by the German chancellor, the GSC itself was drafted without participation from the government.¹⁵³ Representatives from the financial sector, the business community, and civil society actively participated in its creation, including a “testing phase” and feedback from the participating companies before its launch.¹⁵⁴

By selecting a relatively small number of indicators, the GSC aims at making sustainability reporting easier and more accessible to a larger number of companies that previously had not made use of any available reporting schemes due to their complexity.¹⁵⁵ Here, the GSC exemplifies another claim of Proactive Law proponents in providing more accessible, understandable, user-friendly law.¹⁵⁶

Similar to reflexive environmental law, the GSC relies on regulation through information.¹⁵⁷ To comply with the GSC, a participating company is required to describe how it fulfills each of the GSC’s 20 criteria, or, if it cannot, the reason why. Such an approach relies on internal reflexive processes to advance sustainable development objectives.¹⁵⁸

3. Shift from Adversarial to Win-Win Relationships

The adversarial nature of legal systems, especially in the common law system appears as one of the many obstacles to a comprehensive sustainable development law. Sustainable development requires the balancing of conflicting interests, while the adversarial legal system requires one party “to win” which hinders the desire to create effective, collaborative solutions for sustainable development. Financial incentives for lawyers on all sides enhance the conflict, and keep the conflict active for longer periods than necessary. Therefore, calls for greater use of environmental Alternative Dispute Resolution (ADR) multiply.¹⁵⁹ Arbitration or mediation may be promising options to overcome the conflicting interests between the environment and social and/or economic interests. ADR is also beneficial in helping to find fast and effective solutions that balance the interests and needs of all parties.

Applying these alternative strategies proactively would include their use in the law-making process instead of the dispute resolution stage. In the New Governance paradigm this approach has led to regulatory mechanisms like, for example, negotiated rulemaking. Building on propositions in the proactive contracting literature,¹⁶⁰ collaborative rulemaking could be taken a step further by adding elements of ADR to the law-making process. For example, by adding a mediator to the negotiations, difficulties in reaching an agreement as to what regulatory measure should be taken, and how its content should look like, could be overcome more easily. In the sustainable development paradigm we could imagine that the government plays the role of a third party between conflicting stakeholder interests. In doing so, the state or international organization would become a facilitator, supervisor or partner of and between self-regulated entities rather than a top-down regulator.

The Canadian Boreal Forest Agreement (CBFA)¹⁶¹ is a practical example for this approach. It covers 76 million hectares of public forest licensed to 21 forest companies, nine of which are international environmental organization, and to US and Canadian organizations of the Forest Products Association of Canada (FPAC).¹⁶² FPAC members commit to the highest environmental standards of forest management and conservation, while international environmental organizations commit to global recognition and support for FPAC members’ efforts. They also suspended divestment and “do not buy” campaigns targeting the FPAC companies. The participating companies suspended logging on nearly 29 million hectares of Boreal Forest, allowing intensive caribou habitat protection while maintaining essential fiber supply for uninterrupted mill operations.

Similar agreements have been formed in the mining industry but on a much more regional basis. Impact and benefit agreements (IBA’s) between governments, local communities and mining companies include profit-sharing, employment, wider economic development opportunities, greater transparency, and enhanced protection of environmental and socio-cultural amenities.¹⁶³ In addition, Good Neighbor Agreements (GNA’s) have also been formed in many different countries where mining companies and the local communities have formed partnerships. For example, the Good Neighbor Agreement in Montana, between the citizens of Stillwater and Sweet Grass counties and the Stillwater Mining Company, established a process for citizens to regularly meet with company representatives to address and prevent problems related to the impact of mining, reclamation, wildlife, and other issues.¹⁶⁴

4. Decentralization, Competition, Pragmatism, and Flexibility

Finally, many of the examples mentioned above illustrate another commonality between New Governance and Proactive Law: preference for decentralized, pragmatic regulation that can deliberately compete with hard law or other soft law initiatives, yet results in dynamic learning, adaptability, flexibility, and more effective regulation.

According to the EESC Opinion, Proactive Law is:

[B]ased on the premise that the law, rather than legislation invented by legal experts, reflects the conduct that a given society accepts and demands as a prerequisite for social order; the law does not consist of formal concepts that last forever and are set in stone; but of rules and principles - written and unwritten - that reflect the collective legitimate interests of each and every citizen at a given point in history.¹⁶⁵

This broad definition deliberately includes “soft” law or private regulation, which may precede or co-exist with traditional “hard” law, thereby creating a decentralized system. When private or soft law-making is imbedded in formal public-private partnerships, these collaborative or competing regulatory processes may create fruitful dynamic learning opportunities. In turn, this will help to effect legal and regulatory structures that are pragmatic, user-friendly and take advantage of stakeholders’ experience and self-interest. Ultimately, decentralized, pragmatic regulations may lead to greater enforceability, particularly on the international level, where enforcement deficits are widely lamented.

The UN-Global Compact mentioned above is an example of this type of institutionalized international public-private partnership. An example of competing sustainability regulation comes from the multitude of social reporting schemes, which have developed over the last years, and now slowly move from private, voluntary schemes to public and mandatory systems.

CONCLUSION

Proactive Law has the potential to resolve many of the problems that plague current attempts to regulate sustainable development. This is because Proactive Law, if adopted and embraced by all stakeholders can help to bridge the gap between regulators and the private sector. While Proactive Law remains an under-theorized theory and was initially not conceptualized as a New Governance strategy, it may offer the complementary approach necessary to the course of events in the social and environmental system.¹⁶⁶ Proactive Law mirrors many of the principles that characterize other New Governance approaches, especially to regulate corporate behavior. As we have mentioned above Proactive Law, in contrast to other New Governance approaches, focuses less on regulatory design but on the content of legal relationships as it seeks to install a more proactive stance towards problem-solving. If further developed as a governance approach, Proactive Law could become a regulatory vehicle to integrate businesses’ own initiatives for sustainable development and public rulemaking.

¹ Rebecca M. Bratspies, *Sustainability: Can Law Meet the Challenge?*, 34 SUFFOLK TRANSNAT'L L. REV. 283, 290 (2011).

² The term “sustainable development” as used in this Article is based on the Brundtland Report issued by the 1987 World Commission on Environment and Development’s (WCED), which defines sustainable development as

“development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT: OUR COMMON FUTURE 40 (1987), available at <http://www.un-documents.net/our-common-future.pdf> [hereinafter Brundtland Report].

³ The U.N.-Accenture report interviewed 1,000 top executives from 27 industries across 103 countries and assesses sustainable business practices in tandem with global priorities. The report identifies how leading companies are adopting innovative strategies to combine impact and value creation. See ACCENTURE, UN GLOBAL COMPACT AND ACCENTURE STUDY ON SUSTAINABILITY (2013), http://www.accenture.com/Microsites/ungc-ceo-study/Documents/pdf/13-1739_UNGC%20report_Final_FSC3.pdf.

⁴ See SAMUEL O. IDOWU & WALTER LEAL FILHO, GLOBAL PRACTICES OF CORPORATE SOCIAL RESPONSIBILITY (2009).

⁵ The U.N.-Accenture study notes that one third of the CEOs believe the world economy is on track to meet the needs of the world on a sustainable basis, but a majority feel a strong business case for sustainability can be made for sustainable development. See ACCENTURE, *supra* note 3.

⁶ See David Morrow & Dennis Rondinelli, *Adopting Corporate Environmental Management Systems: Motivations and Results of ISO 14001 and EMAS Certification*, 20 EUROPEAN MGMT. J. 159 (2002).

⁷ JACQUELINE OTTMAN, THE NEW RULES OF GREEN MARKETING: STRATEGIES, TOOLS, AND INSPIRATION FOR SUSTAINABLE BRANDING (2011).

⁸ NIGEL ROOME, SUSTAINABILITY STRATEGIES FOR INDUSTRY: THE FUTURE OF CORPORATE PRACTICE (1998)

⁹ The Worldwatch Institute, *State of the World 2013: Is Sustainability Still Possible* (2013).

¹⁰ K.T. Muff, et al., *Management Education for the World: A Vision for Business Schools Serving People and Planet* (2013), <http://www.e-elgar.com/PDFs/WebCats/BusinessUS.pdf>.

¹¹ Daniel J. Fiorino, *Rethinking Environmental Regulation: Perspectives on Law and Governance*, 23 HARV. ENVTL. L. REV. 441, 442 (1999); John C. Dernbach, *Navigating the U.S. Transition to Sustainability: Matching National Governance Challenges with Appropriate Legal Tools*, 44 TULSA L. REV. 93, 94 (2008) (concluding that “the issue of an appropriate legal foundation for sustainable development at the national level has received less attention than it deserves”); Rebecca M. Bratspies, *Sustainability: Can Law Meet the Challenge?*, 34 SUFFOLK TRANSNAT’L L. REV. 283, 290 (2011).

¹² For an overview of the “new governance” paradigm see generally Orly Lobel, *The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought*, 89 MINN. L. REV. 342 (2004) (identifying common traits to several “new governance” approaches).

¹³ The literature on “polycentric governance” addresses primarily climate change law e.g.: Cinnamon P. Carlarne, *Rethinking A Failing Framework: Adaptation and Institutional Rebirth for the Global Climate Change Regime*, 25 GEO. INTL. ENVTL. L. REV. 1, 2 (2012) (citing the relevant literature in this evolving field with regard to climate change); Elinor Ostrom, *Nested Externalities and Polycentric Institutions: Must We Wait for Global Solutions to Climate Change Before Taking Action at Other Scales?*, 49 ECON. THEORY 353 (2012); Daniel H. Cole, FROM GLOBAL TO POLYCENTRIC CLIMATE GOVERNANCE, 2 Climate Law 395 (2011); Elinor Ostrom, *Polycentric Systems for Coping with Collective Action and Global Environmental Change*, 20 Global Environmental Change 550 (2010); Elinor Ostrom, A POLYCENTRIC APPROACH FOR COPING WITH CLIMATE CHANGE (World Bank, Policy Research Working Paper No. 5095 (2009); Kenneth W. Abbott, *The Transnational Regime Complex for Climate Change* (November 2011) (unpublished manuscript), available at, http://papers.ssrn.com/sol3/papers.cfm?abstract_id_1813198); Joanne Scott, The Multi-Level Governance of Climate Change, 1 CARBON & CLIMATE L. REV. 25 (2011).

¹⁴ For a laudable exception to these disciplinary “silos” see Timothy F. Malloy, *Regulating by Incentives: Myths, Models, and Micromarkets*, 80 TEX. L. REV. 531 (2002) (proposing a resource-allocation model to enhance the regulator’s choice in the area of environmental regulation).

¹⁵ Helena Haapio, *Quality Improvement through Pro-Active Contracting: Contracts Are Too Important to be Left To Lawyers* (1997), available at <http://www.scandinavianlaw.se/pdf/49-2.pdf>. According to definitions found in common English language dictionaries, the word proactive implies acting in anticipation of future problems, needs, or changes, see RANDY PAGE, FOSTERING EMOTIONAL WELL-BEING IN THE CLASSROOM (2003) (stating that “[t]he concept of proactivity emphasizes taking personal responsibility for behaviour” based on values rather than “blam[ing] circumstances, conditions or, conditioning for their behaviour.”).

¹⁶ See George J. Siedel & Helena Haapio, *Using Proactive Law for Competitive Advantage*, 47 AM. BUS. L.J. 641, 667-84 (2010); Larry A. DiMatteo, *Strategic Contracting: Contract Law As A Source of Competitive Advantage*, 47 AM. BUS. L.J. 727 (2010).

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- ¹⁷ Gerlinde Berger-Walliser, *The Past and Future of Proactive Law: An Overview of the Proactive Law Movement*, in PROACTIVE LAW IN A BUSINESS ENVIRONMENT 13, 24 (Gerlinde Berger-Walliser & Kim Østergaard, eds. 2012).
- ¹⁸ *Id.* at 16.
- ¹⁹ THOMAS D. BARTON, PREVENTIVE LAW AND PROBLEM SOLVING: LAWYERING FOR THE FUTURE 3 (2009) (providing a practical example for how power and control under the traditional regime are replaced by changed attitudes and peer pressure in a more proactive regime).
- ²⁰ LOUIS M. BROWN, PREVENTIVE LAW (1950).
- ²¹ See Edward A. Dauer, *Four Principles for a Theory of Preventive Law* 24-27, in A PROACTIVE APPROACH TO CONTRACTING AND LAW (Helena Haapio ed., 2008) (transposing the principles of preventive medicine to preventive legal risk management through in a three-step model).
- ²² Adapted from Edward A. Dauer, *supra* at 25.
- ²³ European Economic and Social Committee, *Opinion of the European Economic and Social Committee on the Proactive Law Approach: A Further Step Towards Better Regulation at E.U. Level*, C24/139 Official. J. Eur. Union, at C24/142 (2009), § 4.2, available at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52011AE1608&from=EN>.
- ²⁴ See generally, Siedel & Haapio, *supra* note 16 (applying proactive law to identify how firms can use law as a source of competitive advantage).
- ²⁵ Olivier Boiral, *Global Warming: Should Companies Adopt a Proactive Strategy?* 39 LONG RANGE PLANNING 315, 316 (2006).
- ²⁶ Michael Berry & Dennis A. Rondinelli, *Proactive Corporate Environmental Management: A New Industrial Revolution*, 12 ACAD MGMT. EXECUTIVE, 38, 38 (1998).
- ²⁷ Jon M. Shepard, Michael Betz, & Lenahan O'Connell, *The proactive corporation: Its nature and causes*, 16 J. BUS. ETHICS, 1001, 1001 (1997).
- ²⁸ *Id.*
- ²⁹ Berger-Walliser, *supra* note 17, at 24.
- ³⁰ See ANDRES R. EDWARDS, THE SUSTAINABILITY REVOLUTION: PORTRAIT OF A PARADIGM SHIFT (2005). See also, Part II B, *infra*.
- ³¹ Berger-Walliser, *supra* note 17, at 30 (referencing RICHARD SUSSKIND, THE FUTURE OF LAW, 292 (1998)).
- ³² See MARIE-CLAIRE CORDONIER SEGGER & KHALFAN, ASHFAQ, SUSTAINABLE DEVELOPMENT LAW: PRINCIPLES, PRACTICES, AND PROSPECT (2004).
- ³³ J. B. Ruhl, *The Seven Degrees of Relevance: Why Should Real-World Environmental Attorneys Care Now About Sustainable Development Policy?*, 8 DUKE ENVTL. L. & POL'Y F. 273 (1998).
- ³⁴ See J.B. Ruhl, *Law for Sustainable Development: Work Continues on the Rubik's Cube*, 44 TULSA L. REV. 1 (2008). Merriam-Webster online dictionary defines "sustainable" as "able to be used without being completely used up or destroyed." MERRIAM-WEBSTER ONLINE, <http://www.merriam-webster.com/dictionary/sustainable> (last visited October 24, 2013).
- ³⁵ Jerrold A. Long, *Realizing the Abstraction: Using Today's Law to Reach Tomorrow's Sustainability*, 46 IDAHO L. REV. 341, 347 (2013). For a list of sustainability-related definitions by settings see SCOTT T. YOUNG & K. KATHY DHANDA, SUSTAINABILITY : ESSENTIALS FOR BUSINESS 3-5 (2013).
- ³⁶ See J. William Futrell, *The Transition to Sustainable Development Law*, 21 PACE ENVTL. L. REV. 179, 186 (2003) (suggesting that "[i]n designing the new sustainable development law, we should avoid the delay of an effort to define the elusive concept of sustainable development. The analogy is to the law's approach to the elusive concept of justice...").
- ³⁷ See Young & Dhanda, *supra* note 19, at 2.
- ³⁸ ALDO LEOPOLD, A SAND COUNTY ALMANAC, (1949).
- ³⁹ John G. Robinson, *Ethical Pluralism, Pragmatism, and Sustainability in Conservation Practice*, 144 J. BIOLOGICAL CONSERVATION, 958, 959 (2004).
- ⁴⁰ PETER G. BROWN & GEOFFREY GARVER, RIGHT RELATIONSHIP BUILDING A WHOLE EARTH ECONOMY (2009).
- ⁴¹ ELIAS G. CARAYANNIS, CREATING A SUSTAINABLE ECOLOGY USING TECHNOLOGY-DRIVEN SOLUTIONS (2013).
- ⁴² HERMAN E. DALY, BEYOND GROWTH: THE ECONOMICS OF SUSTAINABLE DEVELOPMENT (1997).
- ⁴³ TIM JACKSON, PROSPERITY WITHOUT GROWTH: ECONOMICS FOR A FINITE PLANET (2011).
- ⁴⁴ Paul Shrivastava & Stephanie Berger, *Sustainability Principles*, 7 ORG. MGMT. J., 246, 248 tbl.1 (2010).
- ⁴⁵ Herman E. Daly & Kenneth N. Townsend, *Sustainable Growth: An Impossibility Theorem*, in VALUING THE EARTH: ECONOMICS, ECOLOGY, ETHICS (Herman E. Daly & Kenneth Townsend, eds, 1993).
- ⁴⁶ PARTHA DASGUPTA, HUMAN WELL-BEING AND THE NATURAL ENVIRONMENT (2001).

- ⁴⁷ ANDRES R. EDWARDS, *THE SUSTAINABILITY REVOLUTION: PORTRAIT OF A PARADIGM SHIFT* (2005).
- ⁴⁸ World Commission on Culture and Development, *Our Creative Diversity* 48 (1996), available at, <http://unesdoc.unesco.org/images/0010/001055/105586e.pdf>.
- ⁴⁹ See Veronica Besmer, *The Legal Character of Private Codes of Conduct: More than Just a Pseudo-Formal Gloss on Corporate Social Responsibility*, 2 HASTINGS BUS. L.J. 279, 283 (2006). Just like for sustainable development no single, comprehensive, and universally applicable definition of corporate social responsibility exists, Edwin M. Epstein, *The Corporate Social Policy Process and the Process of Corporate Governance*, 25 AM. BUS. L.J. 361, 374 (1987); from a business perspective see Daniela Ebner & Rupert J. Baumgartner, *The Relationship between Sustainable Development and Corporate Social Responsibility*, Corporate Responsibility Research Conference, Sept. 4-5, 2006, <http://www.crrconference.org/downloads/2006ebnerbaumgartner.pdf>. See also David L. Engel, *An Approach to Corporate Social Responsibility*, 32 STAN. L. REV. 1, 6 (1979) (defining CSR as “the obligations and inclinations”[...] of corporations organized for profit, voluntarily to pursue social ends that conflict with the presumptive shareholder desire to maximize profit.”
- ⁵⁰ See Paulette L. Stenzel, *The Pursuit of Equilibrium As the Eagle Meets the Condor: Supporting Sustainable Development Through Fair Trade*, 49 AM. BUS. L.J. 557, 592 (2012). See also See Michael E. Porter & Mark R. Kramer, *Strategy and Society: The Link Between Competitive Advantage and Corporate Social Responsibility*, 84 HARV. BUS. REV. 78, 88-89 (2006) (defining strategic CSR as the pursuit of initiatives that both society and a company’s own competitiveness)..
- ⁵¹ The “Triple Bottom Line” concept has been developed by sustainability activist John Elkington, see JOHN ELKINGTON, *CANNIBALS WITH FORKS: THE TRIPLE BOTTOM LINE OF 21ST CENTURY BUSINESS* (1997).
- ⁵² See generally John C. Dernbach, *Creating the Law of Environmentally Sustainable Economic Development*, 28 PACE ENVTL. L. REV. 614 (2011). For an overview of environmental laws and executive orders see Environmental Protection Agency, *Laws and Regulations*, <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.
- ⁵³ TIMO BUSCH & PAUL SHRIVASTAVA, *THE GLOBAL CARBON CRISIS: EMERGING CARBON CONSTRAINTS AND STRATEGIC MANAGEMENT OPTIONS* (2011).
- ⁵⁴ See Intergovernmental Panel on Climate Change, *Climate Change 2007: Synthesis Report* (2007), available at, http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf.
- ⁵⁵ Jorge Friedrichs & Oliver R. Inderwildi, *The Carbon Curse: Are Fuel Rich Countries Doomed to High CO2 Intensities?*, 62 ENERGY POL’Y 1356 (2013), available at <http://www.smithschool.ox.ac.uk/research/library/ORI-EnergyPolicy-CarbonCurse-2013.pdf>
- ⁵⁶ PAUL SHRIVASTAVA, *BHOPAL: ANATOMY OF A CRISIS* (1987).
- ⁵⁷ See Charles Perrow, *Normal Accidents: Living with High-Risk Technologies* (1999).
- ⁵⁸ Shrivastava, P, et al., *Understanding Industrial Crises*. 25 J. MGMT. STUDIES 285, 285-304.
- ⁵⁹ DAVID L. RAINE, *SUSTAINABLE BUSINESS DEVELOPMENT: INVENTING THE FUTURE THROUGH STRATEGY, INNOVATION, AND LEADERSHIP* (2010).
- ⁶⁰ 42 U.S.C. §§ 9601-75.
- ⁶¹ See Lucien J. Dhooge, *Beyond Voluntarism: Social Disclosure and France’s Nouvelles réglementations économiques*, 21 ARIZ. J. INTL. & COMP. L. 441, 443 (2004) (describing France’s Article 116 Nouvelles Régulations Économiques (NRE), requiring all French corporations listed on the premier marché (and thereby possessing the largest market capitalizations) to annually report on the social and environmental impact of their activities commencing with their 2003 annual reports).
- ⁶² GEORGE SIEDEL & HELENA HAAPIO, *PROACTIVE LAW FOR MANAGERS, A HIDDEN SOURCE OF COMPETITIVE ADVANTAGE*, 8 (2011) (specifically referring to OECD rules).
- ⁶³ See Brian J. Parai & Thomas C. Esakin, *Beyond Conflict in Clayoquot Sound: The Future of Sustainable Forestry*, in *NATURAL RESOURCE CONFLICT MANAGEMENT CASE STUDIES: AN ANALYSIS OF POWER, PARTICIPATION AND PROTECTED AREAS* (A. Peter Castro & Erik Nuelsen, eds, 2003), <ftp://ftp.fao.org/docrep/fao/005/y4503e/y4503e08.pdf>.
- ⁶⁴ Principles for Responsible Investment, *Building the Capacity of Investment Actors to Use Environmental, Social and Governance (ESG) Information*, 4, available at, http://d2m27378y09r06.cloudfront.net/viewer/?file=wp-content/uploads/Capacity_Building_2013.pdf.
- ⁶⁵ *Id.*
- ⁶⁶ Sometimes referred to as “political CSR.” See Andreas Georg Scherer & Guido Palazzo, *The New Political Role of Business in a Globalized World: A Review of a New Perspective on CSR and its Implications for the Firm, Governance, and Democracy*, 48 J. MGMT. STUD. 900, at 901, 903 (2010).

⁶⁷ See Tracy M. Roberts, *Innovations in Governance: A Functional Typology of Private Governance Institutions*, 22 DUKE ENVTL. L. & POL'Y F. 67, 74-75 (2012) (citing Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1, 33-37 (1997)).

⁶⁸ See Stephen K. Park & Gerlinde Berger-Walliser, *Corporate Social Responsibility and the Global Commons: A Firm-Driven Approach to Global Governance* (forthcoming) (introducing the concept of Corporate-Regulatory Feedback Loops).

⁶⁹ Jeff Civins & Mary Mendoza, *Corporate Sustainability and Social Responsibility: A Legal Perspective*, 71 TEX. B.J. 368 (2008) (with references). See also Porter & Kramer, *supra* note 50, at 10-11 (providing multiple examples for companies successfully integrating social and business issues).

⁷⁰ Global carbon accumulation in the earth's environment is a surrogate measure for the overall condition of earth's environment. Carbon accumulations have continued to worsen each decade. The amount of carbon dioxide in the earth's atmosphere is the cause of climate change. Carbon dioxide in earth's atmosphere had remained below 200 parts per million (ppm) until mid 1700s. It rose to 354 ppm by 1990. It has grown to 394.45 ppm in March 2012 (Mauna Loa Observatory, 2012). And in 2013 at least one lab reported over 400 ppm of carbon. This continuous rise in carbon occurred despite world governments signing the Rio Treaty in 1992 promising to reduce CO₂ accumulation by 20% of 1990 levels. Businesses are under increasing pressure to measure, disclose, and cut back their carbon emissions through the use of clean (renewable) energy, cleaner production methods, and pay a price for carbon emissions. See Busch, *supra* note 53..

⁷¹ See generally, Cordonier Segger *supra* note 32; DUNCAN FRENCH, *INTERNATIONAL LAW AND POLICY OF SUSTAINABLE DEVELOPMENT* (2005); Martin S. High, *Sustainable Development: How Far Does U.S. Industry Have to Go to Meet World Guidelines?*, 14 ALB. L.J. SCI. & TECH. 131, 147 (2003) (providing examples, including U.S. statutory law and voluntary industry actions). A legislative study by the Food and Agriculture Organization of the United Nations (FAO) provides an overview of the law of sustainable development with regards to food, animals, plants, agro-biodiversity, water, fisheries, land, gender, forestry, wildlife, and mountains—including examples for international and national legislation, and case law, see Food and Agriculture Organization of the United Nations, *Law and Sustainable Development Since Rio - Legal Trends in Agriculture and Natural Resource Management* (2002), available at <http://www.fao.org/docrep/005/Y3872E/y3872e00.htm#Contents>. Examples for international sustainable development law include soft law instruments (such as the Rio Declaration from 1992, and UN Global Compact), international treaties (such as the Kyoto Protocol, the Vienna Convention for the Protection of the Ozone Layer, and the Aarhus Convention on Access to Information), public participation in decision-making, and access to Justice in Environmental Matters. For an overview of U.S. state and federal policy initiatives that effectively address climate change, see Thomas D. Peterson, et al., *Developing A Comprehensive Approach to Climate Change Policy in the United States That Fully Integrates Levels of Government and Economic Sectors*, 26 VA. ENVTL. L.J. 227, 237-245 (2008) (suggesting that the federal legislator should adopt some of the more comprehensive state initiatives to address climate change more effectively on a federal level).

⁷² See, e.g., Environmental Protection Agency, *Laws and Regulations*, <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

⁷³ Daniel H. Cole, *From Global to Polycentric Climate Governance*, 2 CLIMATE LAW 395, 397 (2011).

⁷⁴ 1979 Economic Commission for Europe (ECE) Convention on Long-Range Transboundary Air Pollution, U.N. Doc. ECE/HLM.IR.I (1979), *reprinted in* 18 I.L.M. 1442 (1979) and the 1985 Protocol thereto on the Reduction of Sulphur Emissions or Their Trans-boundary Fluxes by at least 30 Percent, done July 9, 1985.

⁷⁵ Vienna Convention for the Protection of the Ozone Layer, *opened for signature* Mar. 22, 1985, S. TREATY Doc. 9, 99th Cong., 1st Sess. (1985), *reprinted in* 26 I.L.M. 1529 (1987); Montreal Protocol on Substances that Deplete the Ozone Layer, *opened for signature* Sept. 16, 1987, S. TREATY Doc. 10, 100th Cong., 2nd Sess. (1987), *reprinted in* 26 I.L.M. 1550 (1987).

⁷⁶ Kyoto Protocol to the United Nations Framework Convention on Climate Change, *opened for signature* Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, *reprinted in* 37 I.L.M. 22 (1998).

⁷⁷ Convention on Biological Diversity of the United Nations Conference on the Environment and Development, *opened for signature* June 5, 1992, U.N. Doc. DPI/1307, *reprinted in* 31 I.L.M. 818.

⁷⁸ Convention on International Trade in Endangered Species of Wild Fauna and Flora, Mar. 3, 1973, 27 U.S.T. 1087, 993 U.N.T.S. 243 (entered into force July 1, 1975).

⁷⁹ Equal Remuneration Convention, adopted June 29, 1951, 165 U.N.T.S. 303; International Labor Organization, Convention (No. 111) Concerning Discrimination in Respect of Employment and Occupation, June 25, 1958, 362 U.N.T.S. 31.

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- ⁸⁰ See e.g., Rio Declaration on Environment and Development, in *Report of the United Nations Conference on Environment and Development*, UN DOC. A/CONF.151/26 (Vol. I), (Aug. 12, 1992); UN Global Compact, <http://www.unglobalcompact.org> (last visited Oct. 26, 2013) (which embrace all aspects of sustainability).
- ⁸¹ The Copenhagen Accord could be viewed as an exception because it sets objectives for climate change laws but also helps developing nations acquire the technology needed for reaching these objectives.
- ⁸² Ruhl, *supra* note 33, at 291 n.53.
- ⁸³ Cymie R. Payne, *Pulp Mills on the River Uruguay (Argentina v. Uruguay)*, at <Http://www.icj-cij.org>. International Court of Justice, April 20, 2010, 105 Am. J. Intl. L. 94, 100 (2011) (criticizing the ICJ's jurisdictional limitation in the case).
- ⁸⁴ Contrary to its predecessor 20 years ago it did not produce a *declaration* but an *outcome document* entitled "The Future we Want," which could be interpreted as less strong than the Declaration "Our Common Future," result of the 1992 Rio conference.
- ⁸⁵ Jacob Werksman & Kirk Herbertson, *The Aftermath of Copenhagen: Does International Law have a Role to Play in a Global Response to Climate Change?*, 25 MARYLAND J. INT'L L. 109-142 (2010).
- ⁸⁶ Michael Mehling, *Implementing Climate Governance: Instrument Choice and Interaction*, in CLIMATE CHANGE AND THE LAW 11, 13 (Hollo, Kulovesi & Mehling, eds. 2012).
- ⁸⁷ *Id.* citing Martti Koskemiemi, *Breach of Treaty or Non-Compliance: Reflections on the Enforcement of the Montreal Protocol*, 3 YEARBOOK OF INTERNATIONAL ENVIRONMENTAL LAW 123, 147 (1992).
- ⁸⁸ See John R. Nolon, *The Law of Sustainable Development: Keeping Pace*, 30 PACE L. REV. 1246, 1249 (2010).
- ⁸⁹ 42 U.S.C. §§ 4321-4370f.
- ⁹⁰ 33 U.S.C. §§ 1251-1387.
- ⁹¹ 16 U.S.C. §§ 1531-1599.
- ⁹² 42 U.S.C. §§ 6901-6992 § (k).
- ⁹³ 42 U.S.C. §§ 7401-7671 § (q).
- ⁹⁴ 42 U.S.C. §§ 9601-9675. For a complete list of federal environmental laws and regulations see Environmental Protection Agency, *Laws and Regulations*, <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.
- ⁹⁵ See Nolon, *supra* note 88, at 1250.
- ⁹⁶ INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC), IPCC FOURTH ASSESSMENT REPORT: CLIMATE CHANGE 2007 (AR4), available at http://www.ipcc.ch/publications_and_data/publications_and_data_reports.shtml#1.
- ⁹⁷ See Michael B. Gerrard & Gregory E. Wannier, *National Laws: North America, United States of America*, in CLIMATE CHANGE LIABILITY: TRANSNATIONAL LAW AND PRACTICE 592-94 (Richard Lord QC, Silke Goldberg, Lavanya Rajamani, Jutta Brunnée, eds., 2012), available at <http://policy-practice.oxfam.org.uk/publications/download?Id=436651&dl=http://oxfamlibrary.openrepository.com/oxfam/bitstream/10546/191277/15/bk-climate-change-liability-6-p2-north-america-031211-en.pdf> (referencing California state law).
- ⁹⁸ *Massachusetts v. EPA* 549 U.S. 497 (2007).
- ⁹⁹ *Id.* at 565; see also Robert Meltz, *Climate Change and Existing Law: A Survey of Legal Issues Past, Present, and Future*, CONGRESSIONAL RESEARCH SERVICE, Aug. 28, 2013, available at <http://www.fas.org/spp/crs/misc/R42613.pdf>.
- ¹⁰⁰ See Meltz, *supra* note 99, at 3-17. See also Arnold & Porter LLP, *U.S. Climate Change Litigation Chart* (2013), <http://www.climatecasechart.com> (last visited Oct. 26, 2013) (overview of climate change related case law).
- ¹⁰¹ Examples for sustainable development laws embracing the Brundtland definition exist for example in New Zealand, Germany, and the EU, add details.
- ¹⁰² James R. May, *Not at All: Environmental Sustainability in the Supreme Court*, 10 SUSTAINABLE DEV. L. & POL'Y 20 (2009).
- ¹⁰³ See generally CONNIE PECK, *SUSTAINABLE PEACE* (1998) available at, <http://carnegie.org/fileadmin/Media/Publications/PDF/Sustainable%20Peace%20The%20Role%20of%20the%20UN%20and%20Regional%20Organizations%20in%20Preventing%20Deadly%20Conflict.pdf>.
- ¹⁰⁴ See John C. Dernbach, *Sustainable Development as a Framework for National Governance*, 49 CASE W. RES. L. REV. 1, 12 (1998).
- ¹⁰⁵ See also H.E. Judge & Christopher G. Weeramantry, *Foreword*, in CORDONIER SEGGER, *supra* note 32. See Dernbach, *supra* note 11, at 94.
- ¹⁰⁶ See, e.g., James C. Kraska, *Global and Going Nowhere: Sustainable Development, Global Governance & Liberal Democracy*, 34 DENVER J. INT'L L. & POL'Y 247, 248 (2006) (arguing that focus on democracy-building

better achieves goals of economic growth and environmental protection than global governance model of sustainable development); Robert F. Blomquist, *Against Sustainable Development Grand Theory: A Plea for Pragmatism in Resolving Disputes Involving International Trade and the Environment*, 29 VT. L. REV. 733, 733 (2005) (criticizing efforts to theorize sustainable development and calling instead for more pragmatic “mood” in sustainability decision-making); Peck, *supra* note 103, at 157.

¹⁰⁷ Peck, *supra* note 103, at 157.

¹⁰⁸ Douglas A. Kysar, *Sustainable Development and Private Global Governance*, 83 TEX. L. REV. 2109, 2117-18 (2005).

¹⁰⁹ *Id.* at 2118 n.51.

¹¹⁰ *SEE* Peck, *supra* note 103.

¹¹¹ See Robin Kundis Craig & J.B. Ruhl, *Governing for Sustainable Coasts: Complexity, Climate Change, and Coastal Ecosystem Protection*, 2 SUSTAINABILITY 1361, 1367-1375 (2010), available at www.mdpi.com/journal/sustainability (identifying eight principles: the polluter-pays principle, the use of best available science, the precautionary principle, intergenerational sustainability, transnational sustainability, accounting for ecosystem services, integrated decision-making, and adaptive management. The authors explain how those principles can be applied to the sustainable management of coastal ecosystems.) An interesting tool of analysis is provided by the Food and Agriculture Organization of the United Nations (FAO). On its website the FAO briefly describes a framework to analyze the strengths, weaknesses, overlaps and gaps in the current substantive law to positively regulate sustainable development, <http://www.fao.org/docrep/005/Y3872E/y3872e02.htm#bm02.3.2>.

¹¹² *Id.* at 1378 (referring to government-stakeholder network structures, indirect governance mechanisms, and economic incentive programs as innovative regulatory proposals for sustainable development).

¹¹³ This definition was inspired by Craig & Ruhl, *supra* note 111, at 1366 (citing Jill Jäger, *The Governance of Science for Sustainability*, in GOVERNING SUSTAINABILITY 142-158 (Adger & Jordan, eds., 2009)), which defines governance for sustainable development as deliberate adjustment of practices of governance in order to ensure that human development proceeds along a more sustainable trajectory). The definition was also impacted by the work of Timothy F. Malloy, *The Social Construction of Regulation: Lessons from the War Against Command and Control*, 58 BUFF. L. REV. 267, 267 (2010) (stating that “legal rules are the products of political institutions engaged in formal procedures—the legislature, the courts, and the regulatory agency.”).

¹¹⁴ Our analysis is based on the premise that regulation has a role to play in making companies more sustainable and that economic sustainable development cannot be left to business alone. See Dennis D. Hirsch, *Green Business and the Importance of Reflexive Law: What Michael Porter Didn't say*, 62 ADMIN. L. REV. 1063, 1086-89 (2010) (citing Michael Porter & Class van der Linde, *Green and Competitive*, HARV. BUS. REV., Sept-Oct. 1995, 120 at 128 (listing six reasons why regulation is needed)). We limit our analysis to government regulation that is public as opposed to private, or self-regulation by the business sector without interference from the government.

¹¹⁵ Eric W. Orts, *Reflexive Environmental Law*, 89 NW. U. L. REV. 1227, 1235 (1995).

¹¹⁶ *Id.* (with further references to criminal prosecution for violation of environmental laws).

¹¹⁷ *Id.*

¹¹⁸ Add citation and describe program.

¹¹⁹ Currently, the available literature mostly refers to environmental regulation, but its arguments are equally valid for the more comprehensive concept of sustainable development.

¹²⁰ The following summary of the criticisms of command-and-control regulation draws in part from Orts, *supra* note 115, at 1235-41 and Hirsch, *supra* note 114, at 1086-90.

¹²¹ The previous part draws in part from Orts, *supra* note 115, at 1241-52 (describing four economic approaches to environmental regulation: taxes, expanding property rights in the natural environment, creation of tradable pollution rights, environmental marketing regulation).

¹²² Add citation and explain greenwashing.

¹²³ For an overview of the “new governance” paradigm *see generally* Orly Lobel, *supra* note 12 (identifying common traits to several “new governance” approaches) and Bradley C. Karkkainen, “*New Governance*” in *Legal Thought and in the World: Some Splitting As Antidote to Overzealous Lumping*, 89 Minn. L. Rev. 471 (2004) (criticizing Lobel’s approach as excessive generalization and differentiating and categorizing some of the New Governance scholarship).

¹²⁴ *See* Karkkainen, *supra* note 123, at 474.

¹²⁵ *Id.* at 475 (with references for each category).

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- ¹²⁶ See Scott J. Shackelford, *Governing the Final Frontier: A Polycentric Approach to Managing Space Weaponization and Debris*, AM.B.L.J.429, 468-69 (2014) (applying polycentric governance to space governance as global commons).
- ¹²⁷ Karkkainen, *supra* note 123.
- ¹²⁸ See Lobel, *supra* note 12.
- ¹²⁹ See Orts, *supra* note 115; Daniel J. Fiorini, *Rethinking Environmental Regulation: Perspectives on Law and Governance*, 23 HARV. ENVT. L. REV. 441, 445-50 (1999).
- ¹³⁰ Gunther Teubner, *Substantive and Reflexive Elements in Modern Law*, 17 L. & SOC'Y REV. 239, 252 (1983).
- ¹³¹ See Fiorini, *supra* note 129 at 448; Hirsch, *supra* note 114 at 1112-14.
- ¹³² See generally Orts, *supra* note 115; Hirsch, *supra* note 114 at 1105-12.
- ¹³³ Elinor Ostrom, *Polycentric Systems for Coping with Collective Action and Global Environmental Change*, 20 GLOBAL ENVIRONMENTAL CHANGE 550, 552 (2010).
- ¹³⁴ *Id.*
- ¹³⁵ See Siedel & Haapio, *supra* note 16 at 641-42.
- ¹³⁶ Mario Sepi & Martin Westlake, Opinion of the European Economic and Social Committee on 'The Proactive Law Approach: A Further Step Towards Better Regulation at EU Level', 2009 Official J. Eur. Union, July 28, 2009, at C 175/26, § 4.2, available at <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:175:0026:0033:EN:PDF> [hereinafter EESC Opinion].
- ¹³⁷ See, e.g., David M. Trubek & Louise G. Trubek, *New Governance & Legal Regulation: Complementarity, Rivalry, and Transformation*, 13 COLUM. J. EUR. L. 539, 550 (2007) (describing the EU Water Framework Directive as an example for New Governance).
- ¹³⁸ The following New Governance principles draw largely on Lobel, *supra* note 12, at 442-43.
- ¹³⁹ PAUL SHRIVASTAVA, BHOPAL: ANATOMY OF A CRISIS (1992).
- ¹⁴⁰ GEORGE SIEDEL, REAL ESTATE LAW (1993).
- ¹⁴¹ Directive 2013/30/EU of the European Parliament and of the of 12 June 2013 on Safety of Offshore Oil and Gas Operations and Amending Directive 2004/35/EC, available at <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:178:0066:0106:EN:PDF> [hereinafter Offshore Oil and Gas Operations Directive].
- ¹⁴² Offshore Oil and Gas Operations Directive, Art. 3, which reads:
1. Member States shall require operators to ensure that all suitable measures are taken to prevent major accidents in offshore oil and gas operations.
 2. Member States shall ensure that operators are not relieved of their duties under this Directive by the fact that actions or omissions leading or contributing to major accidents were carried out by contractors.
 3. In the case of a major accident, Member States shall ensure that operators take all suitable measures to limit its consequences for human health and for the environment.
 4. Member States shall require operators to ensure that offshore oil and gas operations are carried out on the basis of systematic risk management so that the residual risks of major accidents to persons, the environment and offshore installations are acceptable.
- ¹⁴³ Offshore Oil and Gas Operations Directive, Art. 4.
- ¹⁴⁴ Elinor Ostrom, *A Polycentric Approach for Coping with Climate Change 2*, 35 (World Bank, Working Paper 5095, 2009).
- ¹⁴⁵ EESC Opinion, *supra* note 136, at § 1.6.
- ¹⁴⁶ See generally, Parai & Esakin, *supra* note 63.
- ¹⁴⁷ EESC Opinion, *supra* note 136, at § 1.5.
- ¹⁴⁸ PAGE, *supra* note 15.
- ¹⁴⁹ EESC Opinion, *supra* note 136, at § 6.12.6.
- ¹⁵⁰ PAGE, *supra* note 15.
- ¹⁵¹ German Sustainability Code, Recommendations of the German Council for Sustainable Development, Text No. 41 (2012) at 6, available at http://www.deutscher-nachhaltigkeitskodex.de/fileadmin/user_upload/dnk/dok/kodex/RNE_The_German_Sustainability_Code_GSC_text_No_41_January_2012.pdf. [hereinafter GSC].
- ¹⁵² See *id.*, at 2-3.

¹⁵³ See *id.*, at 3 (stating that “the emergence of the German Sustainability Code is of political significance as it marks the first time that a political stakeholder process has resulted in an effective agreement without the involvement of the state. In terms of its content and practice, the Code is a wholly new innovation....”).

¹⁵⁴ See *id.*, at 18.

¹⁵⁵ See GSC, *supra* note 151, at 17.

¹⁵⁶ EESC Opinion, *supra* note 136, at §§ 6.5, 6.12.4.

¹⁵⁷ See GSC, *supra* note 151, at 3.

¹⁵⁸ *Id.* at 8.

¹⁵⁹ See for example Joseph A. Siegel, *Alternative Dispute Resolution in Environmental Enforcement Cases: A Call for Enhanced Assessment and Greater Use*, 24 PACE ENVTL. L. REV. 187 (2007).

¹⁶⁰ See generally, Camilla Baasch Andersen, *Pre-Contractual Mediation*, in PROACTIVE LAW IN A BUSINESS ENVIRONMENT 155 (Gerlinde Berger-Walliser & Kim Østergaard, eds. 2012).

¹⁶¹ See The Canadian Boreal Forest Agreement, <http://canadianborealforestagreement.com/index.php/en/> (last visited May 31, 2014).

¹⁶² See The Canadian Boreal Forest Agreement, *Why it is Important*, <http://canadianborealforestagreement.com/index.php/en/> (last visited May 31, 2014).

¹⁶³ Lindsay Galbraith, et al., *Towards a New Supraregulatory Approach to Environmental Assessment in Northern Canada*, 25 IMPACT ASSESSMENT AND PROJECT APPRAISAL 27–41 (2007).

¹⁶⁴ Sarah M. Zuzulock & James R. Kuipers, *The Good Neighbour Agreement: A Proactive Approach to Water Management through Community Enforcement of Site-Specific Standards* (2007).

¹⁶⁵ EESC Opinion, *supra* note 136, at § 1.1.

¹⁶⁶ This definition of governance is taken from Scott Burris et. al., *Changes in Governance: A Cross-Disciplinary Review of Current Scholarship*, 41 AKRON L. REV. 1, 9 (2008) (citing Scott Burris et al., *Nodal Governance*, 30 AUSTRAL. J. LEG. PHIL. 30 (2005)).