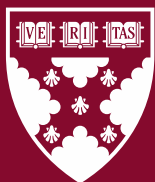


Working Paper 24-041

Private Regulation, Institutional Entrepreneurship, and Climate Change: A Business History Perspective

Ann-Kristin Bergquist
Geoffrey Jones



**Harvard
Business
School**

Private Regulation, Institutional Entrepreneurship and Climate Change: A Business History Perspective

Ann-Kristin Bergquist

Uppsala University

Geoffrey Jones

Harvard Business School

Working Paper 24-041

Copyright © 2024 by Ann-Kristin Bergquist and Geoffrey Jones.

Working papers are in draft form. This working paper is distributed for purposes of comment and discussion only. It may not be reproduced without permission of the copyright holder. Copies of working papers are available from the author.

Funding for this research was provided in part by Harvard Business School.

Private Regulation, Institutional Entrepreneurship and Climate Change: A Business

History Perspective

Ann-Kristin Bergquist and Geoffrey Jones

Uppsala University and Harvard Business School

Abstract

Private regulatory systems, including voluntary efforts by firms to restrain their own behavior are the primary form of global climate change governance. However when environmental challenges first rose up on the scientific and political agendas during the 1970s, the initial emphasis was on states and government regulation coordinated by the United Nations. This working paper provides a business history perspective how the privatization of global environmental governance happened and show how the system of private regulation was put in place before climate change became a priority issue. We argue that there were two separate paths which eventually merged. The first was the growth of certification schemes for emergent categories such as organic food, green buildings and sustainable investment which lacked definitions and legitimacy. Policy makers had no interest in them, or positively disliked them. Institutional entrepreneurs build institutions to create credibility and legitimacy. These entrepreneurs were drawn from outside big business, and were in some cases hostile to it. The second path was the growing engagement of big business pressure groups, notably the International Chamber of Commerce, in the environmental strategies of the United Nations. Institutional entrepreneurs were again important developing the arguments and concepts around business self-regulation. The two paths merged from the 1990s, as societal pressures for business to act on the environment have grown louder, so greenwashing, green-hushing, transition washing have diffused throughout global climate governance system.

Tags: climate change, environmental regulation, certification, business history

Institutional Entrepreneurship and Climate Change

Ann-Kristin Bergquist and Geoffrey Jones

Uppsala University and Harvard Business School

Private regulatory governance systems are the norm in the contemporary global economy (Bartly, 2022). Private regulatory systems, including voluntary efforts by firms to restrain their own behavior including systems that target business operations ranging from environmental, social and governance (ESG) reporting and carbon accounting, to certification schemes for sustainable agriculture, fisheries, forestry practices and more, are the primary form of global environmental governance. Since the Paris Agreement in 2015, international treaties, including the United Nations Framework Convention on Climate Change (UNFCCC) - first negotiated in Rio de Janeiro in 1992 – have largely relied on the private sector and its willingness to voluntarily combat climate change. The role of the financial sector has been seen as crucial in this regard (Ciplet & Roberts, 2017 Stephen & Ekins, 2019).

An assessment of this reliance on private regulation is contested. It has been seen as exercising a role in pressuring business to green their operations, including mitigation of greenhouse gases. Critics have argued that it has enabled firms to use modest private regulations as a political strategy to pre-empt or delay more stringent public regulations. The aim of this working paper is to provide a business history perspective on this issue. It will examine the historical foundation and evolution of private sector initiatives in global climate governance, and to explore why this happened. It will explore how far this private regulation represents a significant, if incremental, attempt by corporations to reduce their negative impact on climate change, and how it should be seen as forms of corporate greenwashing, green-hushing and transition-washing.

This working paper examines two different historical developments in private regulation and way they came about. The first path was originally created to support the growth of green industries. It consisted of the creation of standards and certifications scheme to define emergent product or service categories in the market, and the development of the early stages of ESG investing. The second path grew out from the interest of large incumbent firms, particularly multinationals, who sought an alternative route to governmental regulations which they regarded as costly, and as a threat to international trade. We show that the alternative route launched by business organisations in the 1980s and in the 1990s was based on self-regulations, which global institutions such as United Nations Environment Programme (UNEP) increasingly came to support. In both cases we employ the concept of institutional entrepreneurship to explain the momentum behind the foundation of institutions and the framing of debates.

Research overview

The role of business in shaping global environmental and climate governance rules has received attention in several disciplines, most notably international political economy literature. Parts of this literature has been concerned with the growing power of corporate influence over environmental governance rules from the 1990s (Clapp 1998; Levy & Newell 2005; Vogel 2009) and the role played by transnational corporations in the negotiations of global treaties, such as the Montreal Protocol on ozone and the UNFCCC (Falkner 2005, 2008). A stream of research has also focused on multilateral environmental governance mechanisms designed to influence the environmental behavior of multinationals. This research has looked at formal efforts to promote better environmental business practices developed by both industry-driven efforts or different kinds of partnerships between business and environmental organizations

and/or international organizations such as the United Nations (Clapp 1998, 23-34). Finally, the political economy literature has been broadly critical about the increasing power of corporate interests in the governance system (Newell & Roberts 2017), arguing that international business can shape the rules to avoid being constrained by states and international regulations.

There is a vibrant business administration literature concerned with the development of new market institutions created by the private sector itself (e.g. King and Lenox, 2000; Bansal & Hoffman, 2012). The scholarship on corporate environmentalism contains different subfields which cover studies of the development of new market institutions, such as business self-regulation programs, certification schemes and new metrics supporting voluntary action (Chrun, Dolsak & Prakash, 2016). This voluminous body of research has been both positive and skeptical about the actual impact from the array of certifications, standards, guidelines, and frameworks to guide companies to integrate “sustainability” into core business strategies.

In contrast, the subject of business and climate change has been slow to get the attention of more than a handful of business historians. The negative reason for this is that the literature has been excessively focused on firms as creators of wealth rather than on the costs on the environment. A more defensible reason is that the central role of climate change in environmental challenges is recent. It only emerged as a subject requiring regulatory action in the late 1980s. So, the limited amount of business historical literature focussed on other environmental issues, including air and water pollution (Rosen, 1995; Uekötter 2009, Bergquist & Söderholm, 2011; Jones and Lubinski, 2014) and organic food (Jones and Mowatt 2016: Jones 2017). Only recently has attention turned to the history of certification (Jones 2017) and the role of the International Chamber of Commerce at the United Nations (Bergquist & David, 2023). Meanwhile Boon (2019) on the oil industry and climate change provides a rare study of the impact of private regulation. He concluded that the voluntary nature of climate governance

has resulted in a situation where the oil industry has been doing very little meaningful action to achieve decarbonization before the last decade. Focusing on the case of the United States, Adam Rome (2019) provided an important case study of how market institutions, including Wall Street expectations, limited the chemical firm DuPont's ability to seriously address climate change. Although there is a growing number of studies that has focused on specific country cases (e.g. Rome, 2021) the larger story of how business came to become active actors in shaping the architecture of *global* climate governance has remained largely unexplored in the business history literature. As stressed recently by Ben Huf, Glenda Sluga and Sabine Selchow (2022), the role of business and multinationals in early international environmental governance is overall not well understood.

There have also been a growing number of historical studies beyond formal business history that have explored the role of the fossil fuel industry in shaping both national and global climate policies (e.g. Supran & Oreskes, 2021; Franta, 2018, 2021, Bonneuil, Choquet and Franta, 2021). In an important study, the historian of science Naomi Oreskes and co-author has demonstrated how the emergence of climate science skepticism in the 1990s was orchestrated by some oil companies and conservative think tanks in the United States (Oreskes & Conway, 2010). Yet beyond fact that major fossil fuel companies succeeded in causing delay in climate action (see also Dunlap & McCright, 2011), historical research on how business have shaped rules and institutions for global climate governance is scarce (Huf et al. 2022; Bergquist & David, 2023).

II

The creation of certification schemes and environmental reporting was the work of institutional entrepreneurs. The settings were all emergent new categories whose definition was

unclear, and which lacked legitimacy, certainly to incumbents and to many potential customers. Policymakers had, initially at least, little interest in these new categories, so it was left to the entrepreneurs in them to build the institutions needed to build credibility and legitimacy. This section will look at the cases of organic food and buildings as well as sustainable investing.

It is important to note that the foundational work on certification predated the era when climate change became the most pressing environmental issue, even though strong ecological and social concerns were present. Climate change only emerged as an issue that required regulatory action in the late 1980s and was not a major concern for the environmental movement before that. It was only in the early 1970s that scientists began to define anthropogenic climate change as an environmental issue (Hart & Victor, 1993 p 661-662).¹ At the UN Stockholm conference in 1972, the potential danger of anthropogenic “climatic change” was highlighted in the conference Action Plan, but the issue was still characterized by great scientific uncertainty and not threatening in the near future. Instead, other immediate environmental challenges, including pollution from toxic chemicals, acidifying substances (including acid rain), hazardous wastes, deforestation, and depletion of natural resources in general, were on the agenda in Stockholm. The 1970s saw in general a strengthening of governmental environmental regulation in the Western world, based on command-and-control regulatory approaches (permission, prohibition, and enforcement by law) that took different forms in different countries (Gunningham, 2009; Wallace, 2017). However, these regulations at the time did not address climate change, but rather a range of other problems such sulfur dioxide (SO₂) emissions, heavy metals, chemical substances, waste management and many other pollution issues.

¹ The greenhouse effect hypothesis - that changes in the abundance of atmospheric CO₂ would affect climate - was formulated already in 1824, while the Swedish scientist Svante Arrhenius predicted that temperature would rise if enough CO₂ was added to the atmosphere at the turn of the century twentieth century. After World War II until the mid-1970s, research proceeded along two scientific lines: one on the carbon cycle and an the other on atmospheric modelling.

Today it is known that the agrifood sector accounts for one-third of the total anthropogenic greenhouse gas emissions (FAO, 2022). However, neither climate change nor the contribution of conventional agriculture to it were known in the foundational period of organic agriculture. The first certification scheme which took environmental aspects into consideration was in organic food and was an outgrowth of the Anthroposophical movement created by Rudolf Steiner in the early twentieth century. In 1924, Steiner first outlined the principles of biodynamic agriculture, a form of organic farming and already in 1927, his followers created Demeter. This organization advised farmers trying out Steiner's methods, and engaged in the marketing of biodynamic products. A Demeter trademark was introduced in 1928 to facilitate marketing biodynamic produce. Demeter was the only international organic food trademark for the next half century. Anthroposophy was highly esoteric and biodynamic farming – involving the application of nine secret “preparations” and co-ordination with the movement of the moon and stars – was highly time-consuming and complex. As a result, the number of working biodynamic farms remained small (Jones 2017, 2023).

There were only sporadic attempts to create new certification schemes until the second wave of environmentalism in the 1960s. Over the 1970s, there were ad hoc attempts in different countries to develop certification schemes, primarily led by organic farmers who disliked and distrusted capitalism but who wanted standards to give their category legitimacy, not least with consumers. The health of the soil and the health of people were the primary concerns, rather than climate change (Guthman 2004, Jones 2017).

The turning point for certification in organic agriculture came in Europe in 1980. An international standard emerged from the French biodynamic organization Nature et Progrés (N & P), whose leadership had attended fringe meetings at the United Nations Conference in Stockholm in 1972. Led by the visionary Roland Chevriot, N & P released its first set of guidelines for organic agriculture in France, and also launched the International Federation for

Organic Agriculture Movements (IFOAM), persuading organic organizations from Sweden, Britain, South Africa and the United States to join up. The N & P leadership believed that if organic food was to be seen as legitimate there had to be a standard definition between countries. By 1980, the first draft of organic standards was in place. The IFOAM standards signaled a transition away from a system which had rested on personal relationships between farmers and consumers, towards transferring the powers of verification to a separate certification and inspection system. In a movement initially based on strong values, it began to make formal rules the primary form of regulation. (Jones, 2017)

IFOAM's mission continued to evolve. As Asian and then Latin American societies joined from the 1980s, IFOAM's agenda expanded to reflect their concerns, including social justice and development. In 1992, IFOAM participated in the UN Food and Agriculture Organization's Rio Conference in Brazil. Finally in the new century, it began to make the case for organic agriculture as a solution to climate change. (IFOAM 2017). (Biodynamic Federation 2021)

Although certification in organic food began as self-regulation, during the 1980s several European governments came to be involved in organic standards or developed logos for organic products. Public policy motivations ranged widely from enthusiasm for environmental and social benefits to wanting to support what was seen as a potentially lucrative infant industry. A further layer of complexity was added as regional integration in Europe resulted in a new set of public agencies becoming involved. In 1991, a new company called ECOCERT was formed in France for the provision of certification services. Subsequently it diversified beyond France and organic food into cosmetics, perfumes, and textiles. (Jones, 2017)

The certification schemes put in place for organic food legitimized and defined the new category. However, many uncertainties remained, including the existence of different concepts such as organic, biodynamic, and natural, each with their own standards. Nor was possessing

certification a guarantee of environmental sustainability. The growth of large organic retailers – such as Whole Foods Market in the United States (and their equivalents elsewhere) – meant that certified organic products were shipped from around the world to satisfy consumers, completely negating any positive impact on climate change.

The creation of green building standards and certification systems also had its origins during the 1980s and was the result of interactions between architects, conventional property developers, public agencies, and NGOs. In the wake of the 1973 oil crisis, the primary focus was on low energy design. In Britain during the late 1980s a number of property developers involved in London's Canary Wharf redevelopment project became interested in the idea of building commercial buildings that incorporated effective environmental improvements, especially low-energy performance. The outcome was a pioneering building assessment and certification system called Building Research Establishment Environmental Assessment Method (BREEAM), launched in 1990. The standard was focused not only on energy efficiency and resource scarcity, but also on broader environmental challenges, including the effects of chlorofluorocarbons used in aerosols and air conditioning. It was an entirely voluntary system for developers, who used it either to understand best practices, or to highlight their achievements to the market (Jones 2017)

Although BREEAM was pioneering, it did not remain unique. The most globally important certification scheme was the Leadership in Energy and Environmental Design (LEED) system based in the United States. This was primarily the work of another institutional entrepreneur, David Gottfried, a real estate entrepreneur and environmentalist who sought to create a non-profit organization to promote green buildings. He persuaded environmentally inclined building materials companies to join the venture as dues-paying members by laying out a program of developing environmental standards. Sixty firms and non-profit organizations became founding members of the U.S. Green Building Council (USGBC) in 1993. The central

strategy was to include members across industrial sectors, as well as environmental organizations, in the hope of securing consensus among key stakeholders. (Gottfried 2004) The new rating system called LEED was piloted in 1998. A more sophisticated version, known as LEED 2.0, was launched two years later.

The endeavor initially met much skepticism, but it had considerable momentum. Hundreds of volunteers drafted LEED rating systems for commercial interiors, existing buildings, health care, schools, neighborhood developments, and other markets. The US government's General Services Administration, which owned a huge portfolio of federal buildings, became an early adopter. They were joined by municipalities and state governments. In 2008, California became the first state to adopt a statewide green building code. The Green Building Council model spread to other countries. The first World GBC conference was held in 2002. In 2023, the World Green Building Council included national green building councils in seventy-five countries.

The building certification schemes were important examples of private regulatory governance. The institutionalization of building performance was a major influence encouraging architects and builders to think harder about sustainability, including energy conservation than they had previously. Yet critics argued against both LEED and BREEAM that they failed to measure post-construction performance, for instance of carbon emissions, to see if tenant behavior changes expectations expressed in the certification rating. LEED's point system, touted for its flexibility, also attracted critics, especially among ecological architects. As in other certification systems, the use of metrics in the standards provided the opportunity for gaming of the system. There were also incentives to developers and builders to game it because certification could be, and was, used in marketing. Environmental activists talked explicitly of "LEEDwashing." The Green Building Councils, although non-profits, needed to earn revenues in order to fund the organization, and therefore had no incentive to make

standards so rigorous that certification was too difficult to obtain. Finally, at best, the certificate schemes captured only a part of the problem. Critics noted that a new home could receive a top LEED certification even if it was an over-sized house built in an environmentally stressed area like a desert. (Jones 2017; Bowers, Boud and McGoun, 2020)

Unlike building certification, there was no government involvement in the early stages of ESG investing. Its origins can be traced back to the policies of certain Christian groups such as Quakers and Methodists not to invest in industries considered sinful, such as slavery and alcohol, but it was again in the 1980s that there was a new momentum by ecologically and socially motivated individuals.

During that decade a number of unconventional female activists in Boston, and later elsewhere, were instrumental in scaling this kind of investment beyond the niche and the religious. Joan Bavaria was a value driven pioneer in what was then called Socially Responsible Investment. Franklin Research and Development Corporation (FRDC, later Trillium Asset Management) in 1982 as a cooperative owned by its (mainly female) employees. FRDC employed traditional financial analysis, research by nonprofits and NGOs, and interviews with managers to rank companies that both showed promising financial upside and passed FRDC's screens for evaluating investments. These included specific criteria, such as no investment in South Africa, and broader considerations such as "sensitivity to the environmental impact" and "product/service quality and social usefulness." (Jones 2023)

FRDC published its ratings and invested in the equity of companies that it believed would deliver attractive financial and social returns in the long term. Bavaria saw no tension between the two different types of returns. She believed that strong environmental and social policies would increase the profitability of companies. Two-thirds of FRDC's investors were high-net worth investors, and the remainder churches and small foundations. (Jones 2023)

Bavaria sought to build a community that would develop and share metrics. She moved early to build relationships with other like-minded investment houses, including Pax World and Calvert. By 1985, this group evolved into a nonprofit trade association named the Social Investment Forum (later U.S. SIF). It began to develop a set of principles regarding corporate conduct on environmental matters to echo the Sullivan Principles, a code of conduct by the Bishop Leon Sullivan who sat on the Board of General Motors, regarding investment in South Africa. In 1989, a huge oil spill in Alaskan waters from the tanker Exxon Valdez, owned by the largest U.S. oil company, served as a catalyst for elevating these efforts. The spill energized the ongoing discussions about how to improve the environmental practices of big business. SIF wrote the “Valdez Principles” (subsequently renamed the “Ceres Principles”) to catalyze the release of standardized information on environmental performance, designed to operate similarly to the standards of the Financial Accounting Standards Board in the United States. The principles included wide-ranging environmental goals, such as the protection of the biosphere and biodiversity, and energy efficiency, but nothing on climate change. (Jones 2023)

Bavaria formed the nonprofit organization Ceres (Coalition for Environmentally Responsible Economies) to manage the Ceres Principles. While SIF focused solely on investors, Ceres sought to gather investors, environmental organizations, and public interest groups to persuade companies to adopt and practice the Ceres Principles. Signatories of the Principles paid an upfront fee and an annual administrative fee for the cost of Ceres monitoring and verification of compliance. The first few years it attracted a handful of value-driven companies, including Ben & Jerry’s. In 1993 Sunoco, an oil refiner, became the first Fortune 500 company to endorse the Ceres Principles. Sunoco remained the only oil company signatory as of 2023. (Jones 2023)

In 1996 Bavaria recruited Bob Massie, an Episcopal priest, Democrat politician, and social justice campaigner, as president of Ceres. He developed a set of environmental and social

reporting standards. In 1997, Ceres launched the Global Reporting Initiative (GRI), whose guidelines aimed to prompt disclosure and transparency. GRI was intended to be international, particularly since European businesses had been more receptive to the concepts of SRI. In 2002, Ceres spun GRI off as an independent entity organized as a non-profit based in the Netherlands. By 2008, over 1,500 companies around the world had adopted its reporting standard, although less than 20 percent of the companies were based in the United States. It was mainly used by larger publicly traded companies, and although professionally designed, it remained a voluntary system which allowed selected reporting of some metrics and not others. (Jones, 2023)

Amy Domini was a second unconventional institutional entrepreneur hailing from Massachusetts who also exercised a formative impact on the socially responsible investing movement. Inspired by Joan Bavaria, Domini co-founded KLD Research & Analytics which launched the Domini 400 Social Index (DSI) in 1990. This was a portfolio of 400 companies identified as socially responsible using proprietary screening criteria. The DSI included approximately 250 companies from the Standard & Poor 500 Index, 100 other large- and mid-capitalization companies selected to diversify the sectors represented in the DSI, as well as 50 smaller companies that were chosen for their “exemplary” social and environmental practices. Companies had to demonstrate the potential for strong financial performance to be included. (Jones 2023)

KLD experienced limited interest when it attempted to license the index to large mutual fund companies as a way to earn revenue. To earn revenue on the index, Domini established her own mutual fund in 1991, which was called the Domini Social Equity Fund. The new fund launched with a \$600,000 investment from the retirement fund of an affluent colleague. The fund’s initial growth was slow until it significantly outperformed the S&P 500 Index between 1995 and 1999. This was less proof that social responsibility pays, however,

than a reflection that the screening criteria led to a portfolio of technology stocks which boomed at that time. (Jones 2023)

The impact on the ecological and social performance of firms included in the index was impossible to measure. The screening criteria certainly resulted in unlikely firms being included in DSI. In 2003, the environmentalist and entrepreneur Paul Hawken waged a crusade against Domini for calling McDonald's fast-food business— "a company whose mission harms children and its workers," in Hawken's words—socially responsible. He pondered whether SRI was best seen as "a way for upper-class people to launder their money." Domini responded to Hawken's argument by arguing that McDonald's had made progress in reducing its output of solid waste, promoting racial and gender diversity among middle and upper management positions, and being responsive to other social and environmental concerns. It therefore fell into the category of one of her "better" companies. (Jones, 2023).

By the 2000s, then, as climate change rose to prominence, institutional entrepreneurs had put in place private regulatory schemes in the form of certification schemes and bodies, and indexes measuring social and ecological performance. Governments had at best a supporting role in some of these cases. These certification schemes had defined categories and set standards, and they were globalized. The primary downside was their potential to become corporate vehicles for greenwashing.

III

When the first United Nations Conference on the Environment was held in Stockholm 1972, it was recognized that global environmental degradations, including "climatic" change, could not be addressed by single nations alone. This conceptualization of

environmental problems and their solutions meant that nation states were viewed as the appropriate agents of environmental action, but that international regimes were the suitable governance mechanism (Lemos & Agrawal, 2006). From the 1980s, however, business actors were increasingly perceived as constructive and potent agents in reshaping the global economy in an environmentally sustainable way. This shift worked in tandem with alterations of the institutional architecture in global environmental governance, allowing business to work more in partnership with the United Nations.

While the Stockholm conference in 1972 has overall been recognized as momentous for international cooperation to govern global environmental issues, a second transformative shift appeared as the concept of sustainable development was introduced by the UN commissioned Brundtland Commission in 1987 (Bernstein, 2002; Ciplet & Roberts, 2017). The report is best known for having launched the concept of *sustainable development* as a development that “that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Yet, the report also deliberated on the most critical environmental issues facing the world and proposed a broad set of policy recommendations to manage them. Among those issues was “climatic change”, which begged for more research and transnational cooperation.

As the Brundtland report stated, “No nation has either the political mandate or the economic power to combat climatic change alone” (WCED, 1987, Chapter 7, see section “managing climatic change”). Only year after the Brundtland Commission had published their report, the United Nations Environment Programme (UNEP) created the Intergovernmental Panel on Climate Change (IPPC) together with the Meteorological Organization (WMO) in 1988. The same year, UN’s General Assembly agreed on a resolution on climate change, characterizing the climate as the “common concern of mankind” (Bodansky, 2001, 28). As the IPPC delivered their landmark scientific assessment report in 1990, the UN General Assembly

established the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC), to negotiate a convention containing “appropriate commitments” in time for signature in 1992 at the Rio Conference (Bodansky, 2001, 32). Until then, business had been growing in awareness around a range of other environmental issues, while the creation of the IPCC and INC/FCCC seriously put climate change on corporate agendas.

As governments introduced new environmental regulations during the 1960s and 1970s, considerable tensions emerged between business and governments in many countries because of the costs of compliance. In the United States, for example, the implementation of the Clean Air Act Amendments of 1970 led to controversies between the Environmental Protection Agency (EPA) and the automobile industry (McCarthy, 2007). Multinational corporations were also challenged by the fact that environmental regulations diverged between countries, and they had to comply with different national jurisdictions (Rugman & Verbeke, 1998). Early on, the ICC identified disharmonized environment laws between countries as a barrier to international trade and transnational business operations. By the time of the Stockholm Conference in 1972, the organization was seeking a solution to this challenge by stressing the efficacy of business self-regulation in contrast to international treaties (Bergquist & David, 2023).

The 1972 Stockholm Conference had the ambition to enforce new institutions and an international legal governance structure. It produced a Declaration on the Human Environment (the so-called Stockholm Declaration) which outlined twenty-six principles of international environmental law, along with the Action Plan that contained 109 recommendations to be implemented. Recommendation no 79 (a, b and c) called attention to “climatic” change and recommended states to set up approximately 10 baseline stations (with consent from states involved) in order to monitor long-term global trends in atmospheric

constituents and properties “which may cause changes in the meteorological properties, including climatic change” (UN, 1972). UNEP, which was the first-ever international environmental management body, was created in 1973, and was given the overall responsibility for the implementation of the Action Plan's recommendations.

Maurice Strong, a self-made Canadian oil and gas billionaire, served as General Secretary of the Stockholm Conference in 1973 and the UN Environment Programme (UNEP). As recently demonstrated by Huf, Sluga and Selchow (2022), Strong mobilized his business and corporate networks to incorporate industry and multinationals into the work of international institutions which were developing approaches to environmental governance in the early 1970s. He created UNEP's Industry Office, with the purpose of identifying, classifying and evaluating international environmental concerns on an industry-by-industry basis. In building up the Industry Office, Strong selected the ICC as UNEP's exclusive partner (Bergquist & David, 2023). Strong emerged from the early 1970s as an institutional entrepreneur in global environmental governance, with distinct abilities to network with both government representatives and researchers, as well as non-government organizations, not least business. Over time, he managed to support a development where business leaders became increasingly closely intertwined with UNEP's agenda for environmental governance.

In 1971, the ICC established a Special Environmental Committee to prepare a submission from world industry to the Stockholm Conference in 1972. In 1973 the ICC launched the Center for Industry and the Environment (ICIE) to function as an intermediary of information between business leaders and UNEP. The organization also launched an international code of environmental practice, *Environmental Guidelines for World Industry*, which represented ICC's preference for self-regulation by business (Bergquist & David, 2023).

The Stockholm Declaration and the Action Plan were characterized by complex conflicts of interests, not the least between the developed and developing countries. According

to Grey (1990), the philosophical conflict between the developed and developing countries, as well as innumerable other political disputes, forced UNEP into compromises and avoidance of tough issues throughout the 1970s. The tenth anniversary of the Stockholm Conference in Nairobi in 1982 was characterized by major political disputes (Gray, 1990). As argued by Borowy (2014, 49), this conference demonstrated overall that the world had experienced a massive increase in environmental degradation and a huge decline in key environmental indicators, not the least in developing countries. It confirmed that little had changed since Stockholm. There was, then, a considerable rationale for UNEP to turn to business in order to bring about some change in a context that otherwise seemed locked.

The 1980s and early 1990s are key to understanding why a higher involvement of business in the deliberations of new environmental policies emerged, and why governments shifted preferences from top-down command-and-control environmental policies to new policy instruments. At transnational level, UNEP, under the leadership of the Egyptian scientist Mustafa Tolba, continued with Strong's agenda to seek more cooperation with the world business community. UNEP's own financial problems, the failed Nairobi conference and frustration over lack of action by national governments were all significant drivers (Bergquist & David, 2023). The wider context was a shift towards pro-business and free market government policies led by President Ronald Reagan in the United States and Prime Minister Margaret Thatcher in Britain.

Thus in 1984, UNEP organized the first World Industry Conference on Environmental Management (WICEM) in collaboration with the ICC at Versailles, Paris. Industry had by now emerged as an important partner of government, international organizations such as the World Wildlife Fund in the arena of international environmental governance policy discussions (Bergquist & David, 2023). The Brundtland Commission, of which Maurice Strong was

member, was working on their report at the time for WICEM, and referred to this corporate sponsored conference in their final report. As they stated:

“The world industry has taken some significant steps through voluntary guidelines concerning industry practices on environment, natural resources, science and technology. Although a few of these guidelines have been extended or applied regionally in Africa, Asia, or Latin America, industry continuous to address these issues through various industry associations. [...] These efforts were advanced significantly by the 1984 World Industry Conference on Environmental Management WICEM” (WCED, 1987, Chapter 12, Section 4.2).

The WICEM meeting in 1984 led to a follow up event in Rotterdam in 1991, WICEM II, where the ICC launched its Business Charter for Sustainable Development. The Charter, initially drafted by Shell, set of 16 principles for environmental management (Bergquist & David, 2023). It became influential in the development of voluntary business codes across different sectors (Falkner, 2008), which according to Jessica Green demonstrates ICC’s entrepreneurial authority in private environmental governance, as it came to dictate behavior and practice that were adopted by others (Green, 2014: 79). Climate change was mentioned at WICEM II, but the principles in ICC’s Business Charter were formulated in very generic terms, and did not mention climate change, or any other specific environmental issue. Instead, wordings such as “environmental impacts”, “environmental performance”, “sustainable use” were applied in the principles.² It is important to note that WICEM II was explicitly focused on preparations for the Earth Summit in Rio.³

Two influential business organizations had prepared for and were very present at the Rio conference. Strong, who was made Secretary-General of the Rio Earth Summit, appointed Stephan Schmidheiny, a Swiss asbestos industrialist close to the ICC, as his special adviser.

² Maurice Strong Papers, Box 443 Folder 4212, “ICC “Business Charter for Sustainable Development – Principles for Environmental Management”. Adopted by the ICC Executive Board 27 November 1990.

³ Maurice Strong Papers, Box 443 Folder 4212 “Internal Memorandum. Final Declaration of the Second World Industry Conference on Environmental Management, Rotterdam, April 10-12, 1991”

Strong gave Schmidheiny the mission to act as the representative of business at the Rio summit and to encourage and promote a broad expansion of interests in sustainable development in business and industry. With the help of Edgard Woolard, Chairman of DuPont, Schmidheiny created the Business Council for Sustainable Development (BCSD) with forty-eight business leaders from around the world. In parallel, the ICC founded a new organization – the World Industry Council for the Environment (WICE) to lobby on environmental issues for business interests in Rio (Bergquist & David, 2023, Chatterjee & Finger, 1994).

The BCSD, under the leadership of Schmidheiny, published a manifesto for the Rio Summit, entitled *Changing Course. A Global Business Perspective on Development and the Environment*. It emphasized that self-regulation had achieved, and would continue to achieve, important improvements in the environmental impact of business and industry. It was argued that self-regulation could prove cheaper to society in general than either command-and-control regulations policy instruments such as carbon taxes or tradable permits. What was needed was a clear framework of expectations and requirements had to be negotiated between participating industries and government. Within such a framework for self-regulation, industry would, as Schmidheiny argued, be free to innovate and compete (Schmidheiny, 1992, p 20). Schmidheiny's most successful ploy, which would prove to be highly influential, was the introduction of the notion of eco-efficiency, which in simple terms pointed at firm-level strategies to produce more with less. BCSD maintained that climate change was one of many environmental challenges that could be addressed through energy efficiency measures. *Changing Course* argued that business action to improve energy efficiency should be initiated without a delay since it made both economic and environmental sense “whether or not global warming becomes a dangerous reality” (Schmidheiny, 1992, 35).

The BCSD strategy was to demonstrate action by weaving concerns about the climate into the overall rhetoric about sustainable development and how to make a business

case for it through eco efficiency measures. The main policy recommendation that the business sector made in the run-up to UNCED was to focus on so-called “no regrets” measures. These included attempts to increase energy efficiency, reduce energy use in manufacturing, and promote technological change and diffusion (Schmidheiny, 1993). The point with the notion of “no regrets” was to only undertake measures that yielded firm level benefits, even in absence of climate change. But as Falkner (2008) has argued, no major global firm or industry spoke out in support of a global limit on GHG emissions under the UNFCCC in Rio. In fact, there was considerable business opposition to suggestions that a reduction in carbon emissions was necessary, especially in the United States (Falkner, 2008, p 102). This position was not taken because of lack of awareness of the issue, but rather because of considerable costs associated with cutting down on greenhouse gas emissions.

The Rio Earth Summit became a platform for large multinationals to shape the way the public should think about the relationship between the environment and development (Chatterjee & Finger, 1994). This reflected their own considerable lobbying skills and resources, but also because of the spread of pro-market policies in many Western countries. Agenda 21, a main document arising from the UNECD, included a chapter on the benefits and potentials of voluntary programs. As Clapp and Thistlethwaite (2012) noticed, voluntary programs were viewed as consistent with the broader goals of sustainable development, although a number of state based environmental agreements were also negotiated at the time. The UNCED at large institutionalized the view that liberalization in trade and finance was consistent with, and even necessary for, international environmental protection, and that both were compatible with the overarching goal of sustained economic growth (Bernstein, 2002). Discussing the proposals for emissions trading agreed at the Kyoto conference in 1997, Strong noted that “though governments must establish the policy and regulatory frameworks for emissions trading, the prime actors in developing and applying the agreements will be private-

sector companies, financial institutions and individuals, and most of the capital will be private.”
(Strong, 2000)

After Rio, in 1995, Schmidheiny’s BCSD merged with ICC’s WICE to form the World Business Council for Sustainable Development (WBCSD). WBCSD developed according to some studies into the most central corporate-funded climate and environmental policy groups, because of its organizational structure, as a forum of CEOs or chairs of the largest corporations (Sapinski, 2015). The official mission of the WBCSD was to provide business leadership as a catalyst for change towards sustainable development and promote the attainment of eco-efficiency through high standards of environmental and resource management. According to WBCSD’s first policy declaration, the objective would be to address climate issues through eco-efficiency and define policies and suggest projects that promoted these issues. WBCSD declared that their objective was to “help companies to understand and implement eco-efficiency through seminars, workshops to promote the eco-efficiency concept. WBCD would also produce guidelines “based on expertise and input from banks, insurers and industry.”⁴ No policy recommendations, mentioned though the need for substitution of fossil fuels.

At the same time, efforts to develop environmental management systems (EMS) were emerging. Besides ICC’s Business Charter on Sustainable Development, the International Organization for Standardization set up a Strategic Advisory Group on the Environment in 1991, in order to examine the need for internationally harmonized standards dealing with sustainability issues. These discussions gained momentum after the Rio Summit in 1992 and eventually led to the adoption of the ISO 14000 series in 1996 which represented a global standard for environmental management that became widely adopted by multinational corporations (Falkner, 2008, p 6-7). Another example was the creation of the Forest

⁴ Maurice Strong Papers, Box 588, Folder XI. World Business Council for Sustainable development, p 5-6.

Stewardship Council (FSC) founded in 1993, and Programme for the Endorsement of Forest Certification (PEFC). The initial motivation for the FSC was a frustration over the failed efforts to sign a global forest convention at the 1992 Rio Earth Summit and the perceived incapability of the International Tropical Timber Organization (ITTO) to advance a robust approach to sustainable forest management (van der Ven & Cashore, 2018).

It has been demonstrated that some oil industry leaders in both the United States and Europe had been aware that their products were causing CO₂ pollution to accumulate in the planet's atmosphere in a "potentially dangerous fashion" long before the Rio Summit. Exxon established internal research programs on climate change in the late 1970s and privately acknowledged that prompt action would be required to avoid severe damage. Both Exxon and Shell had commissioned private research on climate change by 1981 but remained silent about the results. (Supran & Oreskes, 2021; Franta, 2018, 2021, Bonneuil, Choquet and Franta, 2021). During the run-up to the Rio conference, and INC negotiations of the UNFCCC, US-based oil companies intensified a campaign against climate science. With considerable support from the fossil fuel industry, and conservative think tanks, contrarian scientists were employed to create uncertainty and doubt to promote skepticism regarding climate change (Oreskes & Conway, 2011). Coal companies such as Western Fuels Association also deliberately sought to prevent other energy firms from accepting the growing consensus on climate change. The overall aim was to block the door to regulation, both at national level, and in Rio (Falkner, 2008).

The US industry's anti-regulatory arguments fell on fertile ground in the United States during preparations for the Rio Conference, as the Republican administration of George Bush was ideologically committed to an anti-regulatory agenda (Falkner, 2008, 104). The European Commission in contrast, suggested initially a combination of no regret measures and a CO₂ energy tax on carbon. But the CO₂ tax encountered strong opposition from European industry lobbies, and a weak compromise emerged that contained a conditionality clause, meaning that

the tax could only be introduced if the main competitors of EU introduced similar measures. Emitters lobbies in the EU could however not stop the adoption of emission targets but managed to stall the tax and shift the balance in favor of voluntary agreements. Eventually, the European industry conformed to the emerging consensus that international climate action was necessary, although they remained unwilling to bear the cost of European leadership in the form of unilateral binding regulation (Michaelowa, 1998). In the end, the Rio agreement on climate change took the form of a framework convention that excluded binding targets and timetables for GHG reductions, which was a victory for the business lobby.

After Rio, it was not certain whether the industry lobby could once again block national and regional delegations from agreeing on binding regulations on global greenhouse gas emissions. Several large corporations, including Du Pont, who had supported the Montreal Protocol on ozone layer depletion, turned their attention to climate change and created a new business lobbying organization: the International Climate Change Partnership (ICCP) in 1992 (Falkner, 2008, p 111; Rome, 2019). The most obvious distancing from the anti-regulatory business lobby, was represented by an industry that had a vested interest in preventing global warming: the global insurance industry and the world's largest reinsurers, Munich Re and Swiss Re. As Lechner, Haueter and Kenny (2017) note, re-insurance “was one of the few industries whose models reached out into the post-2050s, when the forecast effects of rising sea levels and shifts in precipitation and temperature would potentially lead to major shifts in population and loss of insured values.”

As such, a conflict between the call for increased government interventions to control greenhouse gas emissions (meaning limiting the consumption of fossil fuels) and free-market globalization became a reality. It was within this “institutional void” that private regulation, initiated by business or in partnerships with governments or non-government actors,

became widely accepted as a feasible means to address a wide range of complex sustainability problems, including climate change.

This development was enabled through achievements by another set of institutional entrepreneurs, who developed ideas, arguments, and new metrics, which they believed would reshape capitalism into harmony with the natural world. The British management consultant John Elkington was one of the most important of these figures. In 1987 he co-authored a book entitled *The Green Capitalists* and decade later Elkington launched the concept of a “triple bottom line” of profitability, environmental quality, and social justice (or people, planet, and profit) in a book called *Cannibals with Forks*. In 1987 Elkington (together with Julia Hailes) co-founded a for-profit business consultancy and think tank called SustainAbility to advise firms how to become more sustainable. Elkington’s vision was that “if we wanted to try to change the world, working with the private sector” rather than with governments was key. SustainAbility became an early mover in trying to develop data on environmental performance. Two years after its founding it began work on a report called “The Environmental Audit” with the World Wildlife Fund which raised awareness of the potential of corporate reporting and auditing. In 1994 SustainAbility and UNEP launched regular surveys of corporate environmental reporting called the Engaging Stakeholders Programme (Jones, 2017). Environmental reporting had not the least the purpose to guide investors. The self-regulatory space between the two paths of business-self regulation started to merge and this was particularly evident when the financial sector joined global climate governance. Elkington denounced the triple bottom line concept in 2018, on the grounds that it had simply become an accounting system rather than a means of promoting system wide change (Elkington, 2018)

UNEP started to work closely with the finance sector in the early 1990s, as its power to make an impact was noted considerable, even decisive. The concept of the so-called UNEP Finance Initiative (UNEP-FI) was launched in 1991 when a small group of commercial

banks joined forces with UNEP to catalyze the banking industry's awareness of the environmental agenda before the Rio Summit. In 1992 the UNEP Statement by Banks on the Environment and Sustainable Development was launched, and the Banking Initiative was formed. In 1995, UNEP also joined forces with insurance and reinsurance companies, which merged with the UNEP Financial Initiative in 1997 under the name UNEP Financial Institutions Initiative (UNEP-FII) (UNEP, 2022). At the same time, CERES, the non-profit organization founded by Bavaria created the GRI in 1996, of which UNEP became a partner in 1997. The GRI standards were designed to guide the voluntary preparation of sustainability reports, based on the Triple Bottom Line framework (Jones, 2017; 2023). The GRI guidelines provided a set of reporting principles and a recommended reporting format and content.

To further create linkages between UNEP-FI and other business sectors on a global scale, the United Nations Global Compact (UNGC) initiative was launched in 2000. UNGC sought to engage business in the *voluntary* delivery of global social and environmental policy measures. In 2004, the UN General Secretary Kofi Annan gathered financial institutions to consider how to better integrate environmental, social, and corporate governance factors into asset management and other financial products and services. The report resulting from this gathering mainstreamed the language of ESG, and forced out the term SRI. Corporations were now also invited to voluntarily align their strategies with the ESG goals of the Global Compact (Jones, 2023). In partnership with the UN-Global Compact, the UNEP-FI launched in 2006 the UN Principles for Responsible Investments (PRI). By doing so, UNEP-FI established a notable global sustainability framework that aimed at helping the finance industry address ESG challenges. The PRI developed into the largest global network of institutional investors committed to considering ESG issues in their investments process. In 2019, PRI had reached more than 2,500 signatories (Matos, 2020).

The ESG reporting landscape developed quickly to become fragmented, forming “what has been called an alphabet soup of acronyms with no common framework to guide corporate disclosures” (Davids et al. 2020). Several frameworks that only focus on climate-related indicators, such as the Climate Disclosure Standards Board (CDSB), the Carbon Disclosure Protocol (CDP), and recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) have emerged. In parallel with investor initiatives to broaden performance metrics of companies, the United Nations also pursued a process of expanding the quantitative measures of social and environmental performance, that culminated in the development of the Sustainable Development Goals (SDGs) in 2015 (see Bose, 2020, for a comprehensive overview of the characteristics of all these frameworks). But the problem was that the ESG trend was right from the start challenged by greenwashing, given the voluntary approach and confusion of definitions (Jones, 2023). Although the reason why the financial sector became important in the emerging landscape of private regulation and voluntary commitments in global climate governance is due to its potential to redirect investments to more climate friendly sectors, critical questions exist about the degree of green washing in the ESG estimates, or whether the world is truly witnessing a structural change towards decarbonization in the way investors allocate resources.

Conclusion

The growing interest in private regulation coincided both with the issue of climate change rising on the international policy agenda during the late 1980s and early 1990s, and the diffusion of neo-liberal policies of deregulation and privatization. After the Rio conference, the belief that markets would solve climate change was widely diffused. Between Rio and the UNFCCC negotiations of a protocol in Kyoto in 1997, it was not clear to what extent the UNFCCC regime would include primarily top-down “command-and-control” regulation or a

market-based system with tradable emissions permits, or some combination. (Levy and Newell, 2002) The protocol included (in short) a commitment by industrialized countries to reduce GHG emissions by an average of 5.2 per cent below 1990 levels, and within the commitment period of 2008-12. Many details of how this was to be achieved, including the rules for reporting and verifying emission reductions and measures to ensure compliance, were left to be negotiated at future conferences of the parties (COP). However, as the U.S. did not ratify the Kyoto protocol, a fragmented governance regime was created, that was supposed to be resolved in 2009 in the Copenhagen negotiations, the most business-friendly COP of the UNFCCC. As argued by Cipler & Roberts, (2017), the Copenhagen negotiations pushed through a bottom-up regime, manifested in the so-called Copenhagen Accord. Besides pledges of climate finance, the regime established in Copenhagen embodied almost entirely a voluntary approach to addressing climate change. In this context, private regulation, based on business voluntary involvement and partnerships with the United Nations had already been formed as a key feature in global environmental governance.

From Copenhagen in 2009 to Paris in 2015, the process of voluntarism took, according to Cipler and Roberts (2017), a more institutionalized and structured form. The discourse in the year leading up to and during the Paris negotiations was that the transformation of the economy away from fossil energy could not be funded by governments alone. Rather, it would require a shift in large scale private investments by creating incentives for markets and investors to quickly move to renewable energy and climate resilience. The creators of the second path had ended up in a global climate governance system based on voluntarism, under the motto that it must “pay to be green”. Following the negotiations in Paris in 2015 there was an even more growing focus on how to effectively leverage the private sector to engage on climate change.

Initially the followers of the first path of private regulation were not aligned with the intentions of the institutions and people behind this second path. But boundaries between these two developments paths subsequently merged. However, although private regulation helped firms to expand markets for greener products and services and inspired some incumbent firms to commit to energy-efficiency programs and reducing carbon in value chains, structures within the political economy militated against action to limit carbon emissions. It is significant that more than half of all industrial emissions of CO₂ emitted since the Industrial Revolution occurred between 1988, when climate change emerged as a political issue, and the Paris Agreement in 2015 (Frumhoff, Heede and Oreskes, 2015).

The absence of systematic governmental interventions, including global carbon pricing in some form, made it challenging for companies live up to their voluntary commitments and visions, even as the scientific alarms about global warming accelerated from the 1990s onwards. Yet the problems of self-regulation are apparent, including confusing metrics, lack of transparency and sometimes blatant green washing. Except for re-insurance, the “business case” for seriously addressing environmental challenges was not compelling. In the era when quarterly reporting was the key metric and maximizing shareholder value the primary motivation, responding to a predicted 3 per cent rise in global temperatures by the end of the century was hardly a priority for most Boards. Moreover, the businesses of the five largest carbon emitters – China, the United States, India, the Russian Federation and Japan – which account for 55 per cent of global carbon emissions are either entirely unconcerned with climate change, or at the very least hostile to the idea of taking a serious hit to their bottom lines by doing anything about it.

Would binding global regulation have done a better job? In theory, the answer must be yes, but it is difficult to see how it could have happened. The sharp differences between developed and developing countries were evident from the beginning. Even if it had happened,

it may not have been effective, given that most governments missed even the targets they had signed up to reach. The governments of democracies as a whole prioritize generating wealth over the environment, because it translates into votes, while autocracies such as China and Iran (the seventh largest carbon emitter) prioritize geo-political power. Private regulation is flawed, but it seems better than plausible government alternatives.

References

*A first draft of this working paper was presented at a conference on Climate Change on May 25-26 2023 organized by Bob Fredona, Niels-Viggo Haueter and Teresa da Silva Lopes at the Swiss Re Centre for Global Dialogue in Rüslikon, Switzerland. We are very grateful for all the comments we received from the organizers and participants. We continue to revise the paper which will be published in a volume of the conference proceedings.

Agrawal, Arun, and Maria Carmen Lemos. "Environmental governance." *Annual Review of Environment and Resources* 31.1 (2006): 297-325.

Bansal, Pratima, and Andrew J. Hoffman, eds. *The Oxford handbook of business and the natural environment*. (Oxford University Press, 2012).

Bartley, Tim. "Power and the practice of transnational private regulation." *New Political Economy* 27.2 (2022): 188-202.

Bergquist, Ann-Kristin, and Thomas David. "Beyond Planetary Limits! The International Chamber of Commerce, the United Nations, and the Invention of Sustainable Development." *Business History Review* (2023): 1-31.

Bergquist, Ann-Kristin, "Business and Sustainability." In Teresa Da Silva Lopes, Christina Lubinski & Heide Tworek (eds). *The Routledge Companion to the Makers of Global Business*. Routledge, 2019. 546-563.

Bergquist, Ann-Kristin, and Kristina Söderholm. "Green innovation systems in Swedish industry, 1960–1989." *Business History Review* 85.4 (2011): 677-698.

Bernstein, Steven. "Liberal environmentalism and global environmental governance." *Global Environmental Politics* 2.3 (2002): 1-16

Biodynamic Federation (2021) Climate Action through Agriculture, <https://demeter.net/climate-action>

Bodansky, Daniel. "The history of the global climate change regime." *International relations and global climate change* 23.23 (2001): 505.

Bonneuil, Christophe, Pierre-Louis Choquet, and Benjamin Franta. "Early warnings and emerging accountability: Total's responses to global warming, 1971–2021." *Global Environmental Change* 71 (2021): 102386.

Boon, Marten. "A climate of change? The oil industry and decarbonization in historical perspective." *Business History Review* 93.1 (2019): 101-125.

Borowy, Iris. *Defining sustainable development for our common future: A history of the World Commission on Environment and Development (Brundtland Commission)*. (Routledge, 2013)

Bose, Satyajit. "Evolution of ESG reporting frameworks." In Daniel Esty and Todd Cort (Eds.), *Values at Work: Sustainable Investing and ESG Reporting*, Springer (2020): 13-33.

Bowers, Brittany, Neil Boyd and Elton McGoun. "Greenbacks, Green Banks, and Greenwashing via LEED: Assessing Banks' Performance in Sustainable Construction," *Sustainability. The Journal of Record* (2020) 13, 5.

Chatterjee, Pratap & Matthias Finger. *The Earth Brokers: Power, Politics and World Development*. (Taylor and Francis, 1994).

Clapp, Jennifer and Thistlethwaite, Jason "Private Voluntary Programs in Environmental Governance: Climate Change and the Financial Sector" in Karsten Ronit (ed) *Business and climate policy: The potentials and pitfalls of private voluntary programs*, (United Nations University Press 2012): 43-77.

Ciplet, David, and J. Timmons Roberts. "Climate change and the transition to neoliberal environmental governance." *Global Environmental Change* 46 (2017): 148-156.

Chrun, Elizabeth, Nives Dolšak, and Aseem Prakash. "Corporate environmentalism: Motivations and mechanisms." *Annual Review of Environment and Resources* 41 (2016): 341-362.

Clapp, Jennifer., & Thistlethwaite, J. (2012). Private voluntary programs in environmental governance: Climate change and the financial sector. *Business and climate policy: The potentials and pitfalls of private voluntary programs*, 2012, 43-47.

Clapp, Jennifer. "The privatization of global environmental governance: ISO 14000 and the developing world." *Global Governance* 4.3 (1998): 295-316.

Davies, Paul A., Paul M. Dudek, and Kristina S. Wyatt. "Recent developments in ESG reporting." In Daniel Esty and Todd Cort (Eds.), *Values at Work: Sustainable Investing and ESG Reporting*, Springer *Values at work: Sustainable investing and ESG reporting*, Springer (2020): 161-179.

Dunlap, Riley E., and Aaron M. McCright. "Organized climate change denial." *The Oxford handbook of climate change and society* 1 (2011): 144-160.

Elkington, John. "25 Years Ago I Coined the Phrase 'Triple Bottom Line.' Here's Why It's Time to Rethink It," *Harvard Business Review*, June 25 2018.

Falkner, Robert, *Business Power and Conflict in International Environmental Politics*, (Palgrave Macmillan, 2008).

Franta, Benjamin. "Weaponizing economics: Big Oil, economic consultants, and climate policy delay." *Environmental Politics* (2021a): 1-21.

Franta, Benjamin. "Early oil industry disinformation on global warming." *Environmental Politics* 30.4 (2021b): 663-668.

Franta, Benjamin. "Early oil industry knowledge of CO2 and global warming." *Nature Climate Change* 8.12 (2018): 1024-1025.

Frumhoff, Peter C., Richard Heede, and Naomi Oreskes. "The climate responsibilities of industrial carbon producers." *Climatic Change* 132.2 (2015): 157-171.

Gray, Mark Allan. "The United Nations Environment Programme: An Assessment," *Environmental Law* (Portland Ore.) 20 (2) (1990) 291-319

Green, Jessica F- *Rethinking Private Authority. Agents and Entrepreneurs in Global Environmental Governance*. (Princeton University Press, 2014).

Gunningham, Neil, Robert A. Kagan, and Dorothy Thornton. *Shades of green: business, regulation, and environment*. (Stanford University Press, 2000)

Gottfried, David. *Greed to Green. The Transformation of an Industry and a Life* (World Publishing, 2004).

Guthman, Julie *Agrarian Dreams* (University of California Press, 2004)

Hart, David M., and David G. Victor. "Scientific elites and the making of US policy for climate change research, 1957-74." *Social Studies of Science* 23.4 (1993): 643-680.

Huf, Ben, Glenda Sluga, and Sabine Selchow. "Business and the Planetary History of International Environmental Governance in the 1970s." *Contemporary European History* 31.4 (2022): 553-569.

Jones, Geoffrey. *Deeply Responsible Business. A Global History of Values-Driven Leadership* (Harvard University Press, 2023).

Jones, Geoffrey. *Profits and Sustainability. A History of Green Entrepreneurship* (Oxford University Press, 2017).

Jones, Geoffrey, and Christina Lubinski. "Making 'Green Giants': Environment Sustainability in the German Chemical Industry, 1950s–1980s." *Business History* 56, no. 4: (2014)623–649.

Jones, Geoffrey and Simon Mowatt. "National Image as a Competitive Disadvantage: The Case of the New Zealand Organic Food Industry." *Business History* 58, no. 8 (2016): 1262–1288.

King, Andrew A., and Michael J. Lenox. "Industry self-regulation without sanctions: The chemical industry's responsible care program." *Academy of management journal* 43.4 (2000): 698-716.

IFOAM 2017<https://www.ifoam.bio/climate-change>

Levy, David L., and Peter J. Newell. "Business strategy and international environmental governance: Toward a neo-Gramscian synthesis." *Global environmental politics* 2.4 (2002): 84-101.

McCarthy, Tom. *Auto mania: Cars, consumers, and the environment*. (Yale University Press, 2007)

Matos, Pedro. "ESG and responsible institutional investing around the world: A critical review." CFA Institute Research Foundation, 2020

Newell, Peter and Paterson, Matthew "The Politics of the Carbon Economy" in Maxwell T. (ed) Boykoff . *The Politics of Climate Change: A Survey* (Routledge, 2009): 77-95.

Roman Lechner, Niels Viggo Haueter, and Lawrence Kenny,"Continuity and Change in Reinsurance 1990-2016," in Niels Viggo Haueter and Geoffrey Jones (eds) *Managing Risk in Reinsurance. From City Fires to Global Warming* (Oxford University Press, 2017), 277-300.

Rome, Adam. "Dupont and the limits of corporate environmentalism." *Business History Review* 93.1 (2019): 75-99.

Rome, Adam. "Beyond compliance: The origins of corporate interest in sustainability." *Enterprise & Society* 22.2 (2021): 409-437.

Rosen, Christine Meisner. "Businessmen against Pollution in Late Nineteenth Century Chicago," *Business History Review*, 69, 3 (1995):351-397.

Rugman, Alan M., and Alain Verbeke. "Corporate strategies and environmental regulations: An organizing framework." *Strategic management journal* 19.4 (1998): 363-375.

Michaelowa, Axel. "Impact of interest groups on EU climate policy." *European Environment* 8.5 (1998): 152-160.

United Nations (1972) <https://documents-ddsny.un.org/doc/UNDOC/GEN/NL7/300/05/IMG/NL730005.pdf?OpenElement>

Sapinski, Jean Philippe. "Climate capitalism and the global corporate elite network." *Environmental Sociology* 1.4 (2015): 268-279.

Schmidheiny, Stephan. *Changing course: A global business perspective on development and the environment*. Vol. 1. MIT press, 1992.

Strong, Maurice. *Where on earth are we going?* (Alfred A. Knopf Canada, 2000)

Supran, Geoffrey, and Naomi Oreskes. "Rhetoric and frame analysis of ExxonMobil's climate change communications," *One Earth* 4.5 (2021): 696-719.

Uekötter, Frank. *The Age of Smoke* (University of Pittsburg Press, 2009)

van der Ven, Hamish, and Benjamin Cashore. "Forest certification: the challenge of measuring impacts." *Current Opinion in Environmental Sustainability* 32 (2018): 104-111.

Vogel, David. *Trading up: Consumer and environmental regulation in a global economy*. (Harvard University Press, 2009).

Watson, Michael, and Anthony RT Emery. "Environmental management and auditing systems: The reality of environmental self-regulation." *Managerial Auditing Journal* 19.7 (2004): 916-928.

WCED, Special Working Session. "World commission on environment and development." *Our common future* 17.1 (1987): 1-91.