Chapter 23

Private Regulation in Global Environmental Governance

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Introduction

Over the past decades, private regulations – instances where non-state actors set rules to govern their behavior and/or the behavior of others – have emerged as a vibrant source of global environmental governance. They are diverse in form. From the individual actions of companies to enforce social and environmental performance requirements within their supply chains to industry-wide codes of conduct or multi-stakeholder bodies setting environmental and social standards with third-party compliance audits, these private regulatory efforts are governing the practices of global production, distribution, and consumption.

While reviewing the broad landscape of private initiatives, this chapter focuses on social and environmental certification initiatives. This form of private regulation exists in many sectors, but has particularly deep roots in natural resource management and agriculture. Hence, we use the forest, fishery, and agricultural sectors as focal points to draw attention to broader trends. The chapter discusses demand and supply factors which contributed to the emergence of these initiatives. It then turns attention to the consequences of these processes for both the institutional evolution of private regulators and the effects these initiatives have for problem amelioration. Though a rich body of research attends to the emergence and, to a lesser degree, the evolutionary questions, it is the on-the-ground impacts that current work is increasingly assessing. Taking the insights from these lead sectors, we review the private regulatory activities on climate change, drawing parallels and noting differences that emerge.

We proceed in four parts. First, the chapter details three overlapping analytical perspectives on private regulation. Second, it presents factors associated with the emergence of private regulation in the focal sectors, and it reviews the evolving

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institutional and problem-oriented effects of these initiatives. Next it turns to climate change, where we present a preliminary review of the emergence and effects of a wide array of private regulatory efforts. The final section builds from the review to discuss options for global public policy.

Private Regulation

While International Relations (IR) theories for many years focused on states and tended to dismiss corporations, NGOs, and civil society networks as insignificant actors in world politics, this has notably changed. Cutler *et al.*'s (1999) edited volume on private authority in fields from technical standards to credit rating provided an important foundation for a now-sizable research agenda built on the premise that IR underestimated the role of private actors. These actors, Cutler and colleagues maintained, are "increasingly engaged in authoritative decision-making that was previously the prerogative of sovereign states" (1999: 16).

Particularly relevant to this chapter, several studies have investigated the emergence and proliferation of voluntary codes of conduct, standards, and governance programs, conceptualized as "private authority" (Cutler *et al.* 1999; Hall and Biersteker 2002), "civil regulation" (Bendell 2000; Zadek 2001), and "regulatory standard-setting schemes" (Abbott and Snidal 2009). These studies, following Rosenau and Czempiel (1992), generally agree that we may talk of a shift from government to *governance* in global environmental politics. Across issue areas, we now observe a diversity of collaborative partnerships between states and non-state actors, shared rule-making authority, and private authority supplementing and sometimes supplanting traditional multilateral treaty-making.

The widespread emergence of these initiatives has captured the attention of scholars from various traditions. We outline three overlapping analytic perspectives that capture important threads of existing work. From here, we proceed with an institutional perspective, seeking to outline common features of extant initiatives.

Three Analytic Perspectives

The first analytic perspective – a governance or institutional perspective – comprises work focused on the rules, procedures, and bureaucracies created by actors other than states to regulate, steer, or nudge activities in particular directions and away from others (Meidinger 2006; Abbott and Snidal 2009). As Dingwerth and Pattberg (2006) point out, this strand has an explanatory and prescriptive agenda. Networked governance, greater civil society activism, or business self-regulation are seen as solutions to the complex social and environmental challenges posed by our globalized world (Conroy 2006), or private regulation may be transformative if it develops along particular paths (Bernstein and Cashore 2007; Auld *et al.* 2009; Auld *et al.* 2010).

A second perspective takes businesses – and sometimes business associations – as the unit of analysis. One vein, grounded in neo-institutionalism and business strategy, examines how firms act individually and collectively to regulate markets without direct state involvement (King and Lenox 2000). Businesses adopt codes of conduct and voluntary standards to protect their reputations, provide credible information to consumers, and gain competitive advantages (Reinhardt 2000; Prakash and Potoski

2006). Peer pressure from within the industry may facilitate adoption of standards because environmental and social reputations often reflect on the entire industry, not just individual companies (Gunningham and Rees 1997; Gulbrandsen 2006). The collective action problem is, in many cases, lessened because companies join associations and are able to monitor one another's behavior. An industry response of this kind occurred when the US chemical industry developed the Responsible Care code of conduct following the 1984 Bhopal disaster in India (Prakash 2000). In other cases, individual companies or smaller groups of companies seek to protect their reputation or reap market benefits by making claims about social and environmental responsibility (Auld *et al.* 2008a). Certification can credibly verify such claims, separating responsible companies from free riders. According to a club theory approach, certification systems provide excludable reputation benefits which are non-rival among participating companies (Prakash and Potoski 2006). Companies may also adopt voluntary standards to prevent enactment of more demanding regulations, hoping that adherence to voluntary standards will preempt or soften present and future public regulations (Segerson and Miceli 1998; Vogel 2005). But adoption of standards is just as often caused by pressure from activists and advocacy coalitions that target companies through coordinated campaigns (Cashore *et al.* 2004; Gulbrandsen 2006; Bartley 2007b).

Another vein of this research adopts a critical perspective to understand how corporations exert political power in international environmental politics, both inside intergovernmental negotiations and outside the traditional arena for multilateral treaty negotiations (Levy and Newell 2005; Fuchs 2007; Falkner 2008). Scholarship from this perspective also seeks to subvert and counter the claims of certain scholars in the governance and institutional strand. Rather than noting the transformative potential of private regulation in the social and environmental field, these new initiatives are often, on balance, seen to *reinforce* neoliberal globalization. For instance, Guthman (2007) examines agro-food labels to assess how likely they represent the vanguard of a Polanyian countermovement to the negative effects of neoliberal globalization. She finds that the project of creating a label is in fact consistent with many facets of the neoliberal project. Klooster (2010) investigates similar concerns with forest-sector private regulation, while other studies note instances where private regulations reinforce, rather than work against, distributional inequity (Mutersbaugh 2005; Taylor 2005) and power imbalances among domestic interests (Ponte 2008) and undermine the enforcement of an existing or an incipient regulatory regime (Besky 2011).

A third perspective, related to the critical business scholarship, comprises work that applies various sociological lenses to understand the processes by which private authority emerges and spreads. Bartley (2003), for instance, shows how neoliberal ideas and institutions served as preconditions for the emergence of certification systems in the forest and labor sectors. Bartley and Smith (2007) and Dingwerth and Pattberg (2009) have used the concept of an organizational field to understand the emerging constellations of transnational private regulators. Isomorphic pressures have also been used to explain the commonalities and differences in the programmatic form private regulation takes in different settings (Gulbrandsen 2008). Overdevest's (2005, 2010) work in the forest sector examined the convergence of standards between programs as a product of competitive benchmarking. This analysis has

informed subsequent work on the emergence of experimental governance whereby various interventions are treated as experiments to feed into reasoned public debate with the aim of collectively learning something from each (Overdevest *et al.* 2010). The application of these ideas is beginning to take root in several areas where private regulation is burgeoning (for an application to climate governance, see Hoffmann 2011).

Characterizing Private Regulation

What, then, are the key characteristics of private regulation in global environmental governance? Numerous classification systems exist, each with different theoretical assumptions about important design features. The inclusiveness of private regulatory initiatives, for example, has received considerable attention, with scholars noting different degrees of multi-stakeholderism across programs that have implications for the legitimacy, accountability, and stringency of these initiatives (Gulbrandsen 2004, 2010; Fransen and Kolk 2007; Raynolds *et al.* 2007; Tollefson *et al.* 2008). Others home in on the systems of monitoring, particularly whether an initiative involves independent verification in the form of third-party audits and sanctions for those failing to meet program standards (King and Lenox 2000; Prakash and Potoski 2006). IR and policy scholars have, in particular, given notable attention to the relationship between private regulators and the state (Cashore 2002; Falkner 2003; Börzel and Risse 2005). According to Cutler and colleagues (1999), three features of "private authority" render their rule-making authority distinct. First, those subject to the private rules must accept them as legitimate. Second, there must be a high degree of compliance with rules and decisions being made by private actors. Third, non-state actors "must be empowered either explicitly or *implicitly* by governments and international organizations" granting them the authority to make decisions for others (Cutler *et al.* 1999: 19; emphasis in original). This latter assumption has been questioned by Cashore (2002), who argues that it is precisely the lack of government delegation of rule-making authority which is one of the defining features of market-based certification programs, termed "non-state market-driven" governance. States may influence non-state governance systems in several ways, but they do not use their sovereign authority to require compliance with rules. Indeed, the main claim of much of the literature on private authority is not that states do not contribute to the governance processes, but that private regulatory programs do not derive rule-making authority from governments (Cashore 2002; Bartley 2007b).

Following the governance and institutional perspective, private regulation can be defined as voluntary standards, rules, and practices that are created by non-state actors and govern the behavior of participants in an issue area. There are two aspects of this definition that should be noted. First, since private regulatory programs are created by non-state actors there is no use of legal coercion to force companies to adopt the standards. As participation is voluntary, operators have to be convinced that the benefits of standard adoption will outweigh the costs, or that standard adoption is appropriate and justified in terms of their commitment to corporate social responsibility (Cashore *et al.* 2007; Gulbrandsen 2010). Second, the fact that private regulatory programs govern the behavior of participants means they require

companies to undertake behavioral changes they would otherwise not be required to implement (Cashore *et al.* 2004).

Beyond this minimum definition, there is significant variation in the type, design, and requirements of private regulatory programs. Requirements vary from disclosure rules to mandatory prohibitions on certain activities (e.g. no use of genetically modified organisms). When disclosure is required, the accuracy or value of the information may not be verified, nor is it necessarily tied to required behavioral changes. Examples include information disclosure initiatives such as the Global Reporting Initiative, the Carbon Disclosure Project, and the Forest Footprint Disclosure Project. In these cases, the hope is that information disclosure will enable stakeholders to demand certain performance levels, compare performance across companies, and exert pressure on non-disclosing companies and poor performers (Kolk *et al.* 2008).But without verification or required behavioral benchmarks, they represent a "soft" mode of governance, leaving it up to civil society stakeholders to demand better environmental performance levels based on the disclosed information.

Other programs, such as the Forest Stewardship Council (FSC), the Marine Stewardship Council (MSC), and Fairtrade Labelling Organizations (FLO) International, have created environmental and/or social performance standards and mechanisms to verify compliance with the standards. Compliance verification is usually done by independent auditors. Operators that pass the inspection audit are awarded a certificate attesting to compliance. Although most environmental certification programs involve on-the-ground inspections, the number and types of issues addressed by auditors vary. Depending on the seriousness of a compliance failure, but also on the program's rules, penalties range from minor to major requests to correct practices to revocation of the certificate.

Though varied, most private regulatory programs have membership rules and/or stakeholder bodies. Membership rules sometimes favor industry and business interests; in other cases the rules balance decision-making powers across a broader array of stakeholders. The powers given to stakeholder bodies also vary. Some programs grant ultimate decision-making authority to their membership as a whole. Other programs have granted this authority a board of directors while giving stakeholders an advisory role.

Private Regulation in Practice

Drawing on the analytic perspectives noted above, this section reviews what we know about the emergence of private regulation, the evolution of various initiatives, and their current and future impacts on environmental and social problems. It focuses on prominent forest, fisheries, and agriculture programs, which operate in sectors where the development of private regulation has been vibrant and extensive.

Emergence of Private Regulation

Demand- and supply-side factors underlie the emergence of numerous private regulatory programs in the focal sectors. Two demand-side factors stand out: public policy failures and balancing consistency against demands for choice. Each serves

as motive for the creation of private regulation. On the supply side, institutional entrepreneurs are critical.

Demand for Private Regulation Rather than operating alone and in isolation from governmental processes, private regulatory programs often emerge in response to governance failures or inadequate public regulations. With forest certification, for instance, a series of shortcomings with intergovernmental processes served as an impetus for NGOs and businesses to form private regulatory alternatives. The limited effects of the International Tropical Timber Organization – created in 1986 to implement the first International Tropical Timber Agreement – on tropical deforestation and the failed attempts to produce a binding forest convention at the 1992 UN Conference on Environment and Development nurtured demand for alternative solutions (Humphreys 1996). One outcome was the 1993 launch of the FSC, a partnership between environmental and social NGOs, retailers, manufacturers, forest companies, and professional certification bodies. By circumventing intergovernmental forest policy negotiations, the hope was that forest certification would offer an alternative, fast-track route to improved global forest practices (Elliott 2000; see also Chapter 5 in this volume).

Challenges with ocean governance also served as a motivator for the creation of private fisheries regulation (Gulbrandsen 2005). Multilateral fisheries agreements are more extensive and have greater teeth than those in the forest sector. Still, in the early 1990s, the dramatic collapse of the cod fishery off the east coast of Canada and similar concerns with stocks in the North Sea helped motivate the creation of a private certification system, the MSC (Auld 2009). In 1996, WWF teamed up with Unilever – at the time one of the world's largest seafood buyers – to establish the MSC as a seafood certification scheme. The MSC was formally established in 1997 as a non-profit organization (Fowler and Heap 2000).

Demand for choice and harmonization, too, have underpinned the formation and evolution of several private regulators. The FSC was not the first organization formed to certify responsible forest practices or practices in other sectors. Before it launched, and critical to its formation, a number of private certification organizations and newly founded non-profits had begun building a certification industry. The Rainforest Alliance, founded in 1987 to advance rainforest protection by means other than boycotts, was a key player in this process. It created the SmartWood program in 1989, which certified its first forest operation in Indonesia in 1990. SmartWood and another early certifier – Scientific Certification Services (SCS) – were important contributors to the formation of the FSC. Their prior operations were a key reason the FSC focused on standard-setting and accreditation as opposed to offering certification services itself. The FSC's role was to bring better consistency and harmony to emerging certifiers. SmartWood and SCS were among the first to be accredited as third-party certifiers by the FSC (Auld 2009).

The motivation for harmonization is clearer still in organic agriculture. The International Federation of Organic Agriculture Movements (IFOAM) was founded in 1972 to build and share knowledge about the practices of organic farming. By the 1980s, however, many private certifiers had formed and were loosely attached to IFOAM, raising concerns about consistency. That inspection practices varied across different organic certifiers helped motivate IFOAM to create an accreditation unit,

which eventually became an independent organization, Organic Accreditation Services International. Even before this, IFOAM had been providing international guidance on the basic standards for organic practices in different sectors, taking on the role of promoting consistency within the sector (Auld 2009).

Counter to the drive for consistency and harmonization, demand for private regulatory choice has been an equally important factor. Sometimes the demand has been for alternatives which offer a different approach to accomplishing the same goal. Many of the forest certification programs now housed under the umbrella scheme, the Program for the Endorsement of Forest Certification (PEFC), fit this category. Proponents of national schemes endorsed by the PEFC call their standards equivalent to those of the FSC for what ends they accomplish, even if the means are different. Another example is the apparel industry labor rights scheme – Worldwide Responsible Accredited Production (WRAP) – that emerged in response to the NGO-sponsored Fair Labor Association (Abbott and Snidal 2009: 76). Demand in other cases has been for more complementary alternatives, which tackle different, often emerging problems in a given sector. The Bird Friendly program created by the Smithsonian Migratory Bird Center, for instance, requires that operators which meet its shade-coffee standards must also be certified organic. Only those operators with both certifications can use the program's "Bird Friendly" label (Auld 2009; Auld *et al.* 2009).

Supply of Private Regulation The demand for alternative governance approaches only partly explains the surge in private regulatory programs. Institutional entrepreneurs have played their own critical role in supplying private regulation to an increasing number of issues, including: sustainable tourism, the aquarium trade, palm oil production, soy production, and parks management (Honey 2002; Conroy 2006; Auld *et al.* 2007). Some certification initiatives have largely independent roots; labor standards and forestry standards emerged roughly at the same time, for example, but those working on the respective schemes had little knowledge of what was happening in the other sector (Bartley 2003). In other cases, entrepreneurs have worked to spread the certification idea across sectors and industries. As explained by Auld *et al.* (2007), three entrepreneurial groups are particularly important: environmental NGOs, professional certification bodies, and philanthropic foundations.

First, environmental NGOs have created or supported a range of certification initiatives. The WWF, for instance, was central in launching the FSC, which it copied in modified form when establishing the MSC. The WWF has since helped to form certification schemes for the marine aquarium trade, sustainable palm oil, and sustainable soy oil (Auld *et al.* 2007). The Aquaculture Stewardship Council, a certification program to promote sustainable fish farming, is one the WWF's most recent projects.

Second, certifiers have been key entrepreneurs for the certification idea. Some certifiers were operating well before the advent of social and environmental certification programs, but the growth of sustainability certification initiatives has presented a new business opportunity. Certification bodies like SGS have a long history of auditing technical standards. Established in 1878 to offer agricultural inspection services to European grain traders, SGS was among the first certifiers to be FSC accredited. In

1997, by helping form the labor standards program, Social Accountability International (SAI), SGS facilitated the spread of certification to the apparel industry (Auld *et al.* 2007). SGS, SCS, and a few other professional certifiers have become accredited to certify operations for numerous certification schemes.

Another example is the Rainforest Alliance. It has applied its SmartWood model to the production of various commodities affecting the integrity of tropical forests (Taylor and Scharlin 2004; Auld 2009). In 1994, the first two Chiquita-owned banana farms in Costa Rica were certified, followed the next year by the first coffee farms to be certified in Guatemala.[1] According to the Rainforest Alliance, more than 15% of the bananas in international trade currently come from farms it has certified.[2] The program now certifies a range of tropical commodities, including cocoa, tea, citrus, and cut flowers (Auld 2009).

Finally, philanthropic foundations have provided financial support to certification schemes. Bartley (2007a) details the role of US foundations in the formation of forest certification. The FSC was significant, he explains, because it provided foundations with a project they could jointly support and demonstrated that certification was a potential solution for several environmental and social problems. Some foundations that supported the FSC then supported the MSC; other foundations observed the success of forest certification and decided to support the nascent fisheries certification program. The Packard Foundation was vital in supporting MSC's transformation from a WWF–Unilever partnership to a fully independent, multi-stakeholder certification program (Gulbrandsen 2010). As with FSC, foundation grants remain MSC's most important source of income. Foundations have also supported a range of other social and environmental certification initiatives.

Evolving Effects of Private Regulation

The demand and supply of private regulation within the focal sectors are closely entwined and continue to evolve as the number and diversity of programs expands. Two questions arise about this growing field. A first concerns how the interaction of programs shapes their own institutional development. A second turns attention to the effects of any and all private regulatory programs for problem amelioration. That is, are they addressing the environmental and social problems facing different economic sectors?

Institutional Development The role of entrepreneurs in spreading certification to new problem areas is one part of a larger set of interactions among existing and still-to-develop programs. Copying has been widespread. The FSC modeled its chamber system after those of IFOAM and IUCN (Elliott 2000). The FSC, in turn, has become an organizational model for other certification programs, including the MSC. And recently, the International Social and Environmental Accreditation and Labelling (ISEAL) Alliance has begun actively promoting greater consistency among a growing group of certification systems. Studying a broader set of cases, Dingwerth and Pattberg (2009) argue that the logic of organizational fields and mimetic processes helps to explain convergence to certain design principles for transnational rule-making. However, a closer look at private regulatory programs reveals *persistent variation* in design and organizational characteristics.

The spread of certification from forestry to fisheries illustrates how strategic design choices can result in different organizational features across programs (Auld 2009; Gulbrandsen 2009; Auld and Gulbrandsen 2010). Although the founders of MSC mimicked some of FSC's features, they avoided other features. First, while FSC gives its members ultimate authority, the MSC granted ultimate decision-making authority to a Board of Trustees, which is self-recruiting and functions much like a corporate board of directors. Second, MSC's founders chose not to give national affiliates a role in developing locally appropriate standards, as had the FSC. The localization of standards was instead controlled by certification bodies that were to assess individual applicant fisheries (Auld and Gulbrandsen 2010). Third, the founders of MSC decided not to address social issues in the program's principles and criteria. Several commentators argued in favor of standards covering both environmental and social issues, but MSC decided to keep them narrower, focusing primarily on environmental issues. While MSC's assessment methodology and procedures have been modified over the course of its development, the principles and criteria have remained the same (Auld and Gulbrandsen 2010).

Hence, while mimetic processes have resulted in convergence among some programs, specialization and selective mimicry allow diversity to persist. In this respect, we see that imitation of a specific governance model is likely to be mixed with innovation as a result of strategic design choices, adaptation to a different context, and power struggles over whose interests the model is to serve.

Problem Amelioration The effect of private regulation for problem amelioration is a growing issue of interest to practitioners and academics. In the early stages of many certification programs, proxy measures such as the number of companies participating, areas certified, or values of certified products traded or consumed were cited to capture effects. Attention has since evolved to focus on the behavioral changes operators have undertaken as a consequence of participating in certification programs. As noted above, the voluntary nature of certification programs has led most analysts to identify factors which allow some operators to more easily achieve certification than others. First, evidence suggests that companies facing relatively low costs of standards adoption tend to participate more frequently in schemes with stringent standards than do companies that face high adoption costs (Gulbrandsen 2004, 2010; Cashore *et al.* 2007; Auld *et al.* 2008b). In other words, it may be less costly for companies in countries with relatively stringent environmental regulations to join voluntary programs than it is for companies in countries with lax regulations. Second, large companies in developed countries may find it easier to certify operations than do small operations in developing countries, owing to the benefits of economies of scale (Cashore *et al.* 2004; Cashore *et al.* 2007). Third, several practical barriers impede adoption in developing countries, including lack of technical information, shortcomings of scientific data, or inadequate legal and administrative systems (Gulbrandsen 2004, 2010; Pattberg 2005, 2006; Ponte 2008; Ward and Phillips 2008). Although several certification programs have introduced specialized arrangements to reduce entry barriers for small producers from developing countries, patterns of adoption continue to raise questions about the global effectiveness of private regulatory programs (Auld 2010, Gulbrandsen 2010). Having a patchwork of support for a certification program, particularly ones attempting to promote the ecological integrity

of forests or marine ecosystems, raises questions about landscape-level or ecosystem impacts.

The character of the rules also affects what the programs mean for on-the-ground performance. According to the Rainforest Alliance, its farm certification program creates social and environmental benefits, including decreased water pollution and soil erosion, reduction of pesticides, protection of wildlife, and improved conditions for farm workers.[3] Unlike Fairtrade certification, however, it does not guarantee producers a minimum price, nor does it seem to have a strong impact on working conditions and wages (Daviron and Ponte 2005; Conroy 2006: 251). Because retailers pay less than the Fairtrade price for certified commodities, Rainforest Alliance certification has been tremendously successful in increasing market adoption, thereby allowing multinational corporations like Chiquita, Unilever, and Kraft Foods to capture a large share of the ethical consumer market (Conroy 2006: 251).

The demand-side factor leading to the creation of "choice" in the private regulatory market has also led to competition between programs. In some cases, this is seen as a force for downward pressure on standards. Such a charge has been leveled at the Rainforest Alliance's coffee and banana programs, for instance (Bacon *et al.* 2008). In other cases, competition has resulted in some convergence and upward change of standards, increasing the average stringency of certification systems. In forestry, for example, criteria-by-criteria comparisons of FSC and industry-backed schemes have found substantial differences in environmental ambitiousness, demonstrating that the latter schemes were the least stringent (Overdevest 2005). Such comparisons have placed upward pressure on industry-backed programs, narrowing the gap between their approach and that of FSC, although differences do remain (McDermott *et al.* 2008).

Even this focus on standards, however, leaves some questions unanswered. Particularly, we do not know if compliance alone, even if it is widespread, will mean the environmental or social conditions actually improve. This assumes certification programs have the right standards in place. Examining ultimate performance is beyond the scope of this chapter, but it is one which researchers are attending to with greater energy.

Climate-Related Private Regulation

Against the backdrop of the expanding array of private regulatory programs, it is no surprise that climate change has attracted its share of attention. Each of the three factors we described as affecting the emergence of private regulation is clearly in play.

First, on the demand side, the absence of effective government action has been critical. Following the US withdrawal from the Kyoto Protocol in 2001, and lack of substantial progress in negotiating a post-2012 multilateral climate agreement, myriad climate governance experiments have been initiated by corporations, civil society actors, sub-national governments, cities, and municipalities (Bulkeley and Betsill 2003; Newell 2008; Hoffmann 2011; Meckling 2011). Hoffmann (2011), for example, explains that urgency about climate change and frustration with the lack of progress by intergovernmental processes motivated the development of climate

governance experiments involving a wide range of sub-national actors. This observation is equally important for understanding the emergence of private regulation relevant to climate change.

Additional to this governance failure, the possibility that a new regulatory regime would form further enticed private action. Certain private regulations have emerged to supplement the "flexible mechanisms" established by the Kyoto Protocol. The clean development mechanism (CDM) and joint implementation allow countries with emissions reduction commitments (Annex I countries) to meet their commitments by purchasing credits, through approved emission reduction projects in other countries (non-Annex I countries). Their establishment has provided opportunities for carbon offset standard-setters, verifiers, and traders that could make a profit from regulatory carbon markets (Newell and Paterson 2010).

The regulatory market is the tip of the iceberg, however. On the supply side, institutional entrepreneurs have developed a sizable voluntary, over-the-counter carbon offset market, established to take advantage of the expansion of the climate change policies beyond the initial phase of the Kyoto Protocol. These entrepreneurs have created a variety of offset projects, including wind power, renewable biomass, agricultural methane, landfill gas, small- and large-scale hydro, energy efficiency, avoided deforestation, industrial gas destruction, biofuels, biogas, and fuel switching.[4] The links to forest and agricultural certification programs, and the role of entrepreneurs in spreading certification, is also clearly illustrated in the climate case. The FSC has been working on forest carbon accounting since 2009. The Rainforest Alliance is also in the business of carbon-offset verification and validation. It has been accredited by the American National Standards Institute to the ISO standard (ISO 14065) for greenhouse gas validation and verification bodies,[5] allowing it to provide auditing services to forest managers and landowners.

While the number of offset providers, validators, and verifiers has exploded since the early 2000s (Hoffmann 2011: 132), the standard-setters that develop or approve project methodologies are fewer but serve important regulatory functions. By establishing protocols and methods for measuring, verifying, and recording greenhouse gas reductions, these actors are seen to provide the foundational infrastructure for voluntary carbon markets (Hoffmann 2011). One example is the WWF's Gold Standard, which "essentially applies an extra set of screens to CDM or voluntary projects" (Newell and Paterson 2010: 119), requiring that projects: employ renewable energy or energy efficiency technologies, adhere to the strictest standards on additionality, and create positive effects for local communities (Auld *et al.* 2009).[6] Other well-known standard-setters include Voluntary Carbon Standard, Carbon Fix, Climate Action Reserve, the Climate, Community and Biodiversity standards, Plan Vivio, Voluntary Offset Standard, and Social Carbon. There are also several standards for voluntary emissions reporting, including the Greenhouse Gas Protocol and the Carbon Trust's Carbon Footprint Measurement Methodology.

The Kyoto Protocol also helped foster the global diffusion of marked-based instruments, particularly private experiments with emission trading (Meckling 2011). The first private emission trading systems were innovative but short-lived internal corporate systems implemented by the European oil majors BP and Shell to gain practical experience in anticipation of an international trading system under the Kyoto Protocol. Launched in 2000, BP's internal emission trading system ceased to exist by

the end of 2001, when the company had achieved a 10% reduction in greenhouse gas emissions (Victor and House 2006). Internal trading quickly became dated as national schemes (Denmark and the UK) and regional schemes (the EU Emissions Trading System) were developing in Europe. Meanwhile, in the USA, a private cap-and-trade system got under way in 2001, drawing on the experiences of Shell and BP and emissions trading in Denmark and the UK. This led to the 2003 establishment of the Chicago Climate Exchange (CCX) – the world's first private cap-and-trade system.

Another private regulatory program in the field of climate governance is the Carbon Disclosure Project (CDP). Founded in 2000, the CDP is a London-based, independent non-profit foundation representing a consortium of investors concerned about climate change – and their investments. It is backed by several major blue-chip investors, including HSBC, JPMorgan Chase, Bank of America, Merrill Lynch, and Goldman Sachs. Guided by the aphorism "what gets measured can be managed,"[7] the CDP works with some of the world's biggest corporations, including Walmart, Tesco, Procter and Gamble, Dell, and PepsiCo. It annually surveys these companies on a wide range of climate-related activities and provides this information to investors seeking to reduce exposure to climate-related risks. By publicly disclosing individual corporate responses and summary analyses, the CDP provides valuable information on what companies are and are not doing to address climate change in their own operations and their supply chains. However, unlike certification programs, the CDP stops short of setting standards that require companies to improve performance.

The initiatives reviewed above illustrate how climate-related private regulation has compensated for weak or lacking government regulation, supplemented government regulation, and, sometimes, facilitated the development of government regulation. Some regulations that now are mandatory, for instance, began as voluntary initiatives. As Hoffmann (2011: 52) observes, voluntary programs are often "stepping stones toward mandatory climate policy – voluntary reporting gives way to voluntary action which leads to mandatory action with low targets and finally mandatory action with high targets." The voluntary California Climate Action Registry, for instance, gave way to California's landmark climate legislation signed in 2006, and re-emerged as the Climate Registry. This registry has become the major climate inventory initiative in North America; voluntary reporting to the Climate Registry has, in turn, developed into mandatory reporting for large emitters (Hoffmann 2011: 88–89). Private regulations should thus not only be evaluated on the basis of their direct effects but also on the basis of their broader consequences, including demonstration effects, spillover effects, and educational effects (Auld *et al.* 2008b). How and whether private regulation will act synergistically with government rules is a key question for considering the evolutionary potential of these initiatives (Auld *et al.* 2009; Gulbrandsen 2010).

Options for Global Policy

Just as private regulation has evolved in the past several decades, the attention of research and practitioners has too. Increasingly, scholars are asking how private regulation interacts with public policy domestically and internationally to create hybrid, synergistic, or other relationships which do or do not help address the ultimate global

problems of concern (Schneiberg and Bartley 2008; Auld *et al.* 2009). Based on our review, what conclusions can we initially draw about these interactions and their implications for global public policy?

First, in the domestic context, states can influence private regulatory programs at all stages of the regulatory process from agenda-setting to negotiation of standards and on to implementation, monitoring, and enforcement (Abbott and Snidal 2009). The most obvious example is that existing rules and norms provide the framework for private regulatory schemes (Cashore *et al.* 2004: 20). Other examples are government-controlled or -owned operations acting as clients for certification, governments covering auditing costs for clients, and public procurement policies stipulating the purchase of certified products (Cashore *et al.* 2004: 20–22; Klooster 2006).

Second, in the transnational context, states have fewer possibilities to stimulate, strengthen, or regulate private programs, but they can influence such programs through intergovernmental organizations (IGOs) such as UNEP or international regimes such as the trade regime (Abbott and Snidal 2009: 67). According to Abbott (2012), two types of engagement with private regulatory programs are especially promising for IGOs. The first is what he calls "regulatory cooperation," in which IGOs engage directly with private regulatory programs and the targets of regulation to influence their behavior. Through regulatory cooperation, IGOs can encourage firms to adopt standards, "stimulate and focus public demand," "reduce fragmentation by promoting industry-wide standards," "encourage business schemes to become more participatory and deliberative," and "facilitate learning across firms and industries" (Abbott 2012).

The second mode of engagement is "orchestration." This is where IGOs bring private regulatory programs into the governance arrangement to act as intermediaries between the IGOs and the targets of regulation, such as UNEP's engagement with the Global Reporting Initiative, where UNEP chaired its planning committee, endorsed its sustainability reporting guidelines, and supported it financially (Abbott 2012). The World Bank's alliance with the WWF to promote forest protection and certification is another example. Launched in 1998 and renewed in 2005, the alliance seeks to increase the area of protected and certified forests, particularly in developing countries. The World Bank's commitment to forest certification demanded that it take a clear position on acceptable standards. Although the Bank has not formally endorsed a specific program, the requirements in its operational policies on forests are remarkably similar to the FSC principles (Humphreys 2006: 173–174). The operational policies are officially an internal reference guide for World Bank managers, but the Bank can transmit its policy to countries to which it lends, thereby promoting the FSC.

Third, specific to climate change, scholars have called for "leadership in an experimental world" (Hoffmann 2011: 158); embedding distinct "institutional building blocks" in an international political framework (Falkner *et al.* 2010); and "a light coordination mechanism" for a highly decentralized system (Pattberg 2010: 285). Yet, their rather general prescriptions for global policies leave a lot to be answered. Indeed, government engagement with private regulatory schemes is not always desirable or productive from an environmental or social point of view. Several private schemes, such as the FSC, emerged precisely because of stalemate in intergovernmental negotiations and because IGOs, such as the International Tropical Timber

Organization, were seen as dominated by states that promoted industry interests at the expense of environmental interests (Gulbrandsen 2004; Humphreys 2006). Likewise, states seeking to protect their fishing industries responded to the MSC by urging the UN Food and Agriculture Organization to regulate fisheries certification (Gulbrandsen 2009). Public engagement with private regulatory schemes – and especially those backed by environmental NGOs – thus runs the risk of regulatory capture by the industries those schemes seek to regulate.

Fourth, removing macro-institutional constrains for transnational environmental regulation, both private and public, may do more to facilitate transnational governance by private authorities than would be possible via IGO backing. A much-discussed obstacle to trade-related eco-labeling requirements is the international trade regime. Hence, modifying multilateral trade rules in ways that facilitate rather than hinder eco-certification and eco-labeling could encourage wider adoption of private regulatory programs. In the long term, building an environmentally friendly trade regime could be an effective way of stimulating private regulation in global environmental governance.

Our review has shown that private regulatory programs have become vibrant and dynamic institutions for environmental governance across sectors and countries. These programs represent a remarkable policy innovation by non-state actors, but we have seen that their evolutionary potential depends critically on synergies with government regulations. Future research should examine how the dynamic interactions between private regulatory programs and public policies influence the ultimate performance of these programs in ameliorating pressing environmental and social problems.

Notes

1 www.rainforest-alliance.org/about/documents/ra_timeline.pdf (accessed October 20, 2012).
2 www.rainforest-alliance.org/agriculture.cfm?id=fruits, August 6, 2009 (accessed October 20, 2012).
3 www.rainforest-alliance.org/agriculture.cfm?id=main, August 12, 2009 (accessed October 20, 2012).
4 For an overview of credit and project types, see http://www.endscarbonoffsets.com/ (accessed October 20, 2012).
5 www.rainforest-alliance.org/climate.cfm?id=international_standards, August 6, 2009 (accessed October 20, 2012).
6 http://www.cdmgoldstandard.org/about-us/who-we-are (accessed November 16, 2011).
7 Quotation from Lord (Adair) Turner, Chairman, UK Financial Services Authority at the CDP web site: https://www.cdproject.net/en-US/WhatWeDo/Pages/overview.aspx (accessed November 11, 2011).

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