Making Environmental Self-Regulation Mandatory

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Introduction

A central problem in environmental regulation is to convince firms and corporations—those with the greatest impact on the quality of life at the local, regional, nation-state, and indeed international levels—to take environmentally-friendly actions. Over the past ten years, there has been much discussion, usually in terms of “corporate social responsibility” or “corporate citizenship,” about how to get firms to do the right thing—for both social and self-serving reasons. This approach stands in contrast to older, often ineffective “command and control” approaches to regulation. Part of the attraction of voluntary or self-regulation is that large, complex corporations at best try to act consistently with their own strategic planning, while governments often seem unable to keep up with their own statutory requirements, perhaps because of complicated administrative structures, the lack of political or operational resources, or limited managerial capacity. As has long been recognized, “the private techniques for avoiding regulation are more highly developed than the techniques for enforcing it.” Recently, the International Law Association in its 2002 New Delhi Declaration of Principles asserted that the only way to fully integrate environmental policy is multilateral development well beyond the traditional approaches taken by single governmental actors.

In today’s climate, some worry just as much about political commitment to environmental protection. In the US, for example, the Bush Administration has made a number of changes to environmental regulation. It has side-stepped the Kyoto Protocol by sponsoring a less stringent industry-focused program with key Pacific Rim nations. Moreover, recent changes to the Clean Air Act exempt refineries and power plants from having to upgrade their pollution control systems, new guidelines under the Clean Water Act exempt mining waste and farm pollution, and the US Environmental Protection Agency has stopped developing forty-eight new environmental standards.

We offer a simple mechanism to promote two goals: (1) to encourage firms to take environmentally friendly action, and (2) to make environmental protection impervious to political change. We center this mechanism on the use of an environmental management system (EMS). Essentially, an EMS is a way that firms or other organizations (including public agencies) build processes that
continually plan, implement, review and improve the ways the organization tries to meet its business and environmental goals. Most are built on a “plan, do, check, and act” approach. Our starting point is a host of studies showing that firms adopting an EMS like ISO 14001 improve their environmental performance. Recent studies like Potoski and Prakash show direct evidence that ISO 14001 adoption improves facilities’ compliance with government regulations. One reason is that ISO 14001’s third-party audits reduce the likelihood firms will willfully fail to comply with regulations, and the EMS procedure reduces the chances firms will be in noncompliance due to ignorance. EMS systems pin firms down by creating external and internal pressures without the intervention of government. Types of EMS activities include public environmental reporting, waste minimization planning, pollution prevention planning, compliance audits, best practices, risk assessment, and environmental accounting systems. While we focus in this essay on ISO 14001, we note that there are many types of EMS systems. Environmental management systems vary in their use of identification of environmental impacts of the firm’s operations, an internal environmental working policy, benchmarking standards, firm goals, an audit/certification process, and independent third-party verification. As we argue below, our focus on ISO 14001 is most relevant for the US, while other systems are relevant for other areas of the world.

How do we get firms to adopt an EMS, especially in an era marked by a shift from international agreements concerning sustainable development to an approach to resource management that emphasizes the core role of regulated entities? In the United States, some state agencies and the federal government confer benefits on organizations adopting ISO 14001 by the use of awards and general recognition. But these and similar programs are always susceptible to change when political administrations turn over or when current leaders have a change of heart about using public dollars to encourage environmentalism. Our mechanism is intended to harness the power of EMS systems within firms, while reducing the chances that political change will nullify our solution. To this end, we recommend that governments make firms’ participation in public procurement programs contingent on their adoption of an EMS such as ISO 14001.

Mandatory EMS certification is not unusual in the business world. Ford required in 1999 that all suppliers become ISO 14001 compliant, with targets of one site being certified per supplier by 2001 and all sites by 2003. Other prominent corporate examples include Agilent Technologies, Boeing, Starbucks, Hewlett-Packard, Sony, Fujitsu, General Motors, Daimler Chrysler, and Unilever. The benefits of this corporate requirement for suppliers are discussed widely in the management literature. At the same time, governments around the world have taken steps to increase the green content of public procurement. For example, as we discuss below, numerous national and multinational bodies have sought to employ green public procurement—although efforts have been limited to exhortation and not constraints on public agencies.

This article develops the reasoning behind the value of EMS-based “green procurement.” First, we briefly review two pathologies of command-and-
control regulation given changes in political regimes. Second, we discuss the value of self-regulation—for firms and society—in the context of ISO 14001. We then introduce the concept of green procurement, especially as put in place in Europe. Finally, we turn to ISO 14001 as an EMS “silver bullet”—a solution to the two problems of constraining firms and politicians.

**Two Pathologies of Regulation**

Our starting point is simple: traditional regulatory systems are susceptible to potential moral hazard on the part of both regulated firms and political principals. First, traditional command-and-control is not uniformly successful—it has had its share of success and its share of politically controversial failures. The current system has taken us as far as it go: it cannot improve upon its efforts or achieve new favorable results, partly because new standards and requirements follow in the paths of old ones (limiting choice and flexibility of solutions) and partly because the system cannot sustain current performance while taking on new environmental problems. Moreover, the universe of problems regulatory bodies must consider is rapidly changing: corporations are becoming more heterogeneous and spurring rapid technological development. For example in the United States, the chemical industry annually markets 1000 new chemical products, to the point that the national EPA “lacks toxicity data for more than one-third of the chemicals produced in large volumes as well as about two-thirds of the known hazardous air pollutants.”

Second, even market-based regulatory systems suffer from a basic pathology: the framework for each “incentive compatibility mechanism” must be designed by politicians, and while professional bureaucrats “perfect” these designs to the degree they practice discretion, their ability to do so varies with the winds of political change. This makes for substantial credibility problems for both command-and-control and market-based mechanisms. Firms that are out of compliance might undertake substantial and costly reforms, or they might wait for the next administration to rethink designs put in place at an earlier time. Regulation in this way suffers from a lack of credible commitment. Generally, the study of policy credibility centers on the vertical separation of powers. Theoretically, a publicly-observable regulator of a certain type helps to solve the commitment problem for a politician. That politician, by choosing an environmental regulator with preferences regarding firms’ interests that are counter to his own, can make credible commitments to future agency actions.

We are not arguing for a dismantling of the regulatory state, nor are we arguing that there is an inherent ineffectiveness of all public regulation. Our position is simply that those concerned with the twin problems of inducing firm compliance and weathering political change should seek automatic mechanisms. Mechanisms that “stack the deck” are preferable if one wants to encourage long-term change in a firm’s behavior.

**The Power of Self-Regulation**

Our reasoning about the desire for automatization is also reflected in the
Modern theory of the “open corporation.” The new regulatory state requires a redefinition of the role of the global corporation in the democratic process.\(^{18}\)

The open corporation marries management, democracy, and law in three basic phases as it manages its social and legal responsibility: it commits to respond via self-regulation; it acquires specialized skills for self-regulation; and it institutionalizes the purpose of self-regulation. The key is that corporate management responds to what external regulators and stakeholders put on the table. To be effective, regulation has to move companies through these phases.\(^{19}\)

Essentially, self-regulation supports formal oversight by regulators as the corporation aligns its administrative capabilities with its goal of self-regulation. Management, democracy, and law entwine as information disclosure and independent verification of performance give firms incentives for self-correcting behavior.

Many organizations agree: a multitude of firms, corporations, government agencies, and municipalities have implemented EMS programs like ISO 14001. And while firms can put in place different types of EMS systems, overall “the pressure on industry to protect the environment is now as great as the pressure industry itself has come to place on the environment.”\(^{20}\) But there are also differences. For example, ISO 14001 only recommends public disclosure of activity resulting from the audit process, and not public disclosure of all findings. This may explain ISO 14001 adoptions over other, competing EMS systems. A distinct advantage of ISO 14001, however, is that international standardization affects trading positions in the international arena.

A useful example of self-regulation has been offered in a case study of Shell Corporation’s operations in Nigeria. As Ite notes, multinational corporations (MNCs) “. . . face levels of environmental and social responsibility higher than their national counterparts, because of the two mechanisms of international reputation side effects and foreign stakeholder salience.”\(^{21}\) The Shell operations are ISO 14001-certified, which reinforces company commitments to “compliance with the law, prevention of pollution, and continuous improvements in operations.”\(^{22}\) In this case, Shell has moved above a low level of corporate responsibility to become an open corporation—a primary agent in the Niger Delta for comprehensive community development (now regularly outperforming the national government). It has taken this role in part because the company consents to an independent audit of its development efforts to increase transparency and accountability.\(^{23}\) Although international organizations often pair the reduction of global environmental degradation with removing poverty conditions in underdeveloped countries, others (including underdeveloped countries themselves) attach blame to MNCs from developed countries; significantly, Shell’s efforts work on both dimensions at the same time.\(^{24}\)

**EMS-Based Green Procurement**

Numerous countries now emphasize green procurement. Since 1996, countries of the Organization for Economic Co-operation and Development (OECD) have
sought to integrate green procurement as a way of augmenting overall environmental policy. In 2002, OECD Member Countries agreed on a Council Recommendation “to improve the environmental performance of public procurement.” The goals of green procurement include improved energy efficiency, reliance on products with recycled content, and integration in the decision process of potential environmental impacts. By and large, the successful implementation of green procurement has depended on the dissemination of information and training, tools for communication, accounting, financial management, and mandates requiring specific standards. In this sense, green procurement is simply a result of EMS-type activity within the government—but it can have important effects on the broader community of suppliers. In fact, the 1993 US executive order requiring 100 percent Energy Star procurement by the federal government resulted in “almost overnight change in the sector.”

The US and other governments already require suppliers competing for bids under public procurement systems to have ISO 9000 registration to reduce the need for direct oversight by procurement officials and insure quality control and product reliability. A specific secondary effect of the ISO 9000 requirement in the UK has been to increase the number of ISO registrations in the private sector. The European Commission’s current directive on green procurement (discussed below) may have similar effects, given its position that EMS schemes insure both compliance with environmental values and serve as proof of technical capacity regarding the performance of the contract. EMS adoption can signal technical expertise for the supplier, and deliver environmental protection benefits for society as a whole.

The European Union (EU) has deliberated green public procurement since the call in Article 6 of the 1997 Amsterdam Treaty that “environmental protection requirements should be integrated into the definition and implementation of the Community policies and activities in particular with a view to promoting sustainable development.” In 2001, the EU launched its Sixth Environment Action Programme with calls for enhanced resource use efficiency, better waste reduction strategies, life-cycle style integrated product policy and development of environmental technologies as ways of supporting the goal of economic growth while reducing environmental degradation. Yet, even the EU approach is not mandatory. Instead it is a guidance document that discusses strategies for integrating these general goals into the public procurement process. What the European Commission’s Interpretative Communication of July, 2001 does is clarify what is legally allowed for those public purchasers seeking to integrate environmental considerations into procurement at stages of the contract award procedure. Even this decentralized and voluntary approach to integrating green considerations into public procurement has delivered results, ranging from reductions in energy consumption in Germany (the “Blauer Engel” label) to the increased purchasing of organic foods in Denmark. It has been estimated that the minimum projected benefits could be as high as 830,000 tonnes of CO₂ equivalents. Other countries have followed suit, including the US Energy Star program, the Philippines’ Green Choice Philippines.
National Ecolabelling Program, and initiatives such as those of the Nordic Council of Ministers and the Swan label.

Mandatory EMS adoption solves a dual constraint problem—on firms and on politicians—heretofore unrecognized in literatures on regulatory mechanism design, voluntary regulation, environmental protection, and comparative political economy generally. We next turn to the issue of dual constraints.

**Constraints on Firms and Politics**

We have argued for a simple mechanism: to make firms’ participation in public procurement programs contingent on their adoption of an EMS such as ISO 14001. The current regulatory system is hard pressed to solve the toughest compliance problems—keeping firms from willfully violating the law, or keeping politicians from changing the rules along the way. There is substantial evidence that EMS systems like ISO 14001 give firms incentives to invest in socially responsible behavior. How should we encourage firms to take on that behavior?

Historically, the choice of adoption of an EMS system has been left to politicians to implement through public programs with short lives and maybe even less impact. For example, in the US, the Clinton Administration required in Executive Order 13101 that agencies engage in “environmentally preferable purchasing”—products with lower impact or environmental degradation profile. Oversight is by the Office of the Federal Environmental Executive, which has four staff members. The record is less than compelling. The four primary procuring agencies lack reliable and complete data on the purchasing of green products due to an inability to track these purchases—especially those made through contracts (90 percent of federal procurement dollars). The agencies report that their procurement practices have not changed to increase purchases of green products in part because the agencies charged with managing those programs have not implemented guidance (well after required by the executive order).

A very long literature in regulatory mechanism design has emphasized the problem of constraining the politicians themselves. That is, politicians have incentives to fail to provide sufficient leadership in implementing these sorts of programs, and even if any given politician can see their way to implement that program, that attention can change with change in political regimes. As such, regulated firms (here, suppliers) will lack incentives to make the necessary capital investments to comply with the regulations (or to anticipate required compliance at some future date). The answer in this literature is to separate the role of politicians from that of the actual implementation of the policy. In practice this has meant reliance on independent regulatory agencies, both in the US and around the world. Recent work on the problem faced by politicians—credible commitment—and environmental protection policy has recognized the role of commitment in supporting other types of policies, like negotiated agreements in Western Europe, the choice of regulatory instrument selection,
and nuclear regulation. This is especially difficult in the case of programs that are new and are strongly oriented toward transfers of reduced regulation for voluntary compliance, such as with the US Environmental Protection Agency’s Project XL.

The use of public procurement as a general commitment device is well-supported, especially when trying to achieve social, economic, and other objectives. Other nonlegal approaches can achieve some of the goals of using procurement as a commitment device, such as the use of internal administrative circulars (as in the United Kingdom and countries with a history of English influence like Malaysia) or formal statutes (as in France, other European countries and, the US). Recently, transition countries have adopted public procurement rules and regulations for the first time or have reformed their existing procurement directly through the constitution, as in South Africa. Common commitments made include requiring involvement by female or minority-owned small business, or more importantly, preferring national or local firms over firms from other countries. Other uses include the diffusion of labor standards, the involvement of disabled workers in the labor force, and racial equality through non-discrimination.

The rationale behind our proposal is simple: public procurement is an effective delivery mechanism for EMS programs. As evidenced by other uses, it is also largely under the political radar screen. Just as ISO 9000 requirements have changed the landscape of entire industries, so too can ISO 14001 or EMAS or any other appropriate system. We believe that ISO 14001, because of its familial relationship with ISO 9000, is probably to be preferred in the US, while EMAS has stronger support in Europe. More importantly, ISO 14001 also protects firms from concern about regulatory oversight, or loss of confidential business information. Some of the perceived benefits of EMAS (relative to ISO 14001) include: having a preliminary environmental review, public availability of data and policy information, a detailed audit policy, explicit control over contractors and suppliers, and commitments to specific performance targets.

Given its potential benefits, why have governments not adopted EMS requirements for public procurement? One reason is that large-scale procurement is a recent phenomenon, almost as recent as the 1996 start of the ISO 14001 standard. Firms have also only recently viewed EMS adoption favorably enough that we can start to assess its effectiveness. Now that this has happened, though, perhaps it is time to make EMS part of public procurement de jure? In the United Kingdom, a survey of public officials from over 400 localities showed that where green procurement systems were in place, a majority of them were only moderately successful. But the investigators noted that only 18 percent of the localities were actually using an EMS and stressed that the greater success could be achieved if working green procurement policy systems were developed. Greater national direction was needed and while a major constraint was the higher cost of green procurement, the latter should be resolved as the larger market offers more cost-effective options. More importantly, most green
procurement has been directed at fulfilling governments’ EMS-described goals. The alternative we offer here centers on firms’ EMS-described goals.

The traditional environmental regulatory paradigm is built on the older roles of governments, corporations, and citizens as autonomous actors operating in linear relationships. Our mechanism is built on a new set of relationships where autonomy is superseded by a more holistic model where regulatory responsibilities are shared by governments and corporations. We believe this foundation is more in line with where the global regulatory community is moving—shared responsibility, shared membership, and shared decision-making.

Endnotes
1. This is a problem not unique to environmental affairs; today corporations are so large and complex that they resemble nation-states, to the point of supplying traditional public goods like education, training, welfare, healthcare, and retirement support (Jorg and McIntosh 2000).
4. Dinesh 2005. The concern here is the wide authority being transferred to industry without a “corporate culture” being in place to prudently use that authority to benefit the public.
6. ISO is the International Organization for Standardization, a federation of 130 national standards groups that is known for the ISO 9000 family of quality assurance programs. ISO sets standards that are voluntary, industry wide, and achieved through an internal consensus; they are also intended to ease the burden for firms engaged in international trade. It has been discussed that the World Trade Organization may adopt ISO 14001 (Friends of the Earth 2003).
9. Four types are ISO 14001, the European EMAS, the British 7750, and the CERES Endorsement Program (European Partners for the Environment 2003).
11. At the state level, these programs include Colorado, Illinois, Indiana, Maine, North Carolina, Oregon, Texas, Virginia, and Wisconsin (Crowe 2000). At the federal level, the primary programs are the EPA’s Performance Track, 33/50, and Green Lights Program.
16. GAO 2000, 12.
21. Traditional regulatory agencies usually operate without much impact in oil and mineral rich Niger Delta; critics causes ranging from “inadequate funding to an unfavourable political climate” (Ite 2004, 7).
27. Siemens 2003, 71.
28. The need for ISO 9000 quality assurance is directly related to the increase in compulsory competitive bidding and contracting out (Eicher 2001) and “performance-based contracting” (see Office of Federal Procurement Policy Circular 84–1).


32. 63 Federal Register 49643; September 16, 1998.


34. e.g., Thatcher 2002.


38. Delmas and Mazurek 2004. Project XL is a national pilot program in which public and private organizations (including state and local governments, firms and federal facilities) develop ways of achieving environmental and public health protection at lower cost or with greater effectiveness. This is done in collaboration with the EPA. The organization receives more flexible treatment in return for trying the experiment. The EPA selects projects according to eight criteria.


41. McCrudden 2004

42. European Commission 2006b.

43. Success or failure measures are to be understood in terms of the original goals that localities began with (Warner and Ryall 2001).


References


