

Cognitive and Institutional Barriers to New Forms of  
Cooperation on Environmental Protection: Insights from  
Project XL and Habitat Conservation Plans

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Abstract

Many perceive the predominantly command-and-control structure of regulatory policy to be overly restrictive and inefficient in achieving our emerging environmental goals. In response, the U.S. government has introduced several voluntary programs to develop innovative, beyond-compliance environmental management solutions through the collaboration between government agencies and regulated entities. Yet, these programs have not gained widespread acceptance. This paper analyzes the cognitive and institutional barriers to that acceptance by looking specifically at two programs - Project XL and Habitat Conservation Plans. These barriers act out of force of habit, creating a resistance to change and a rejection of new forms of regulatory policy. We argue that to create policy change, we must change how individuals think and how institutions guide that thinking.

While legal standards have achieved impressive gains in environmental protection and wildlife conservation since the 1960s (Easterbrook, 1995), some argue that the methods they employ are out of date with contemporary environmental problems and that such standards are becoming increasingly inefficient in achieving our emerging environmental goals. Existing standards and enforcement programs are perceived to be too rigid and restrictive to foster the type of private innovation (rather than mere compliance) that is required to identify and implement solutions that are both environmentally and economically sustainable (Schmitt, 1994). Believing that we are rapidly approaching the point of diminishing returns on command-and-control environmental regulation, many see the existing policy regime as possibly the greatest obstacle to continued environmental improvement.

In response to these concerns, the U.S. government has introduced a host of voluntary programs that are designed to foster collaboration between government agencies and regulated entities on the development of innovative, beyond-compliance environmental management solutions. The objective of such programs is compelling: to uncover ways for regulated entities to save money and achieve higher environmental protection standards than are guaranteed by existing regulations. Unfortunately, adoption of these programs has been slow. This paper introduces two examples of such voluntary programs in the areas of pollution control and wildlife habitat conservation—Project XL and Habitat Conservation Plans, respectively—and explores cognitive and institutional barriers to their successful adoption in the private sector.

## **Background**

The predominant regulatory policy regime over the past thirty years has been a command-and-control structure where regulatory agencies set the standards to which

corporations must adhere under threat of penalty (Hoffman, 1997). It is a top-down approach that many critics see as heavy handed. These legal standards often lock organizations into a focus on strict legal compliance rather than the attainment of environmental goals (Tenbrunsel, Wade-Benzoni, Messick, and Bazerman, 1997). Once standards are written, program managers within both government and industry become constrained by a compliance mindset and bureaucratic procedures which attenuate the creative search for more economically and environmentally efficient choices that might deviate from the standard. A given rule structure dictates which pollutants and sources to control, to what extent, and with what technologies across a broad spectrum of disassociated industries. Thus, standard-based systems define the incentive systems for individuals and promote self-interested and expedient behavior that interferes with overarching organizational as well as societal interests (Tenbrunsel, Wade-Benzoni, Messick, and Bazerman, 1997). Creativity goes unrewarded and individuals just "follow the rules."

But alternative regulatory programs are now being proposed that employ a negotiated form of compliance tailored to the needs and potentialities of individual organizations and environmental contexts. This new approach is "characterized by a new kind of legal self-restraint...[which] restricts itself to the installation, correction, and redefinition of democratic self-regulatory mechanisms" (Teubner, 1983: 239). Cooperative environmental policy fundamentally reconfigures the role and objectives of both oversight agencies and the regulated community. Instead of mandating environmental policy, regulators seek out the input and participation of other parties with site-specific knowledge about the nature of environmental problems they encounter and the potentially innovative solutions available to resolve them. These may include regulated private sector organizations, non-profit organizations, scientific communities, local and state governments, community organizations and others. Through

negotiation among these interested parties, corporations gain the flexibility to define which emission sources to control through site-specific compliance strategies that achieve broadly defined objectives (Schmitt, 1994). Cooperative environmental policy strives to reward proactive companies for seeking competitive advantage through environmental innovation beyond regulatory standards (Fiorino, 1999).

This paper considers cooperative regulation as an opportunity for creating value for all interested parties in a setting that recognizes both their competing and complimentary interests. The goal is to maximize environmental gain while minimizing economic costs (both in legal confrontation and operational reconfiguration). However, this balance is contrary to the historically predominant view of the relationship between environmental protection and economic growth. Over the past thirty years, environmentalists and business/development interests have fought a zero-sum battle where environmentalists have tried to strengthen regulations and business/development interests have attempted to weaken them. This zero-sum confrontation is represented as a "win-lose" environmental negotiation as depicted in Figure 1 (Hoffman, Gillespie, Moore, Wade-Benzoni, Thompson, and Bazerman, 1999). In this view, environmental gains cannot be achieved (moving from the southeast, point B, towards the northwest, point C) without incurring economic costs. (See Thompson (2001) and Bazerman (2002) for review of how parties frequently fail to create value in negotiation because of a myopic focus on value claiming.)

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Insert Figure 1 here

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Unfortunately, while parties are fighting this zero-sum battle to enhance or weaken environmental legislation, the result is often intractable positions and inefficient regulation.

Opportunities to develop wiser legislation - better for environmental *and* economic interests - are lost. Voluntary programs, such as Project XL and Habitat Conservation Plans, offer a model for negotiations that could realize value-creating and efficiency enhancing trades by improving upon rules that are very costly to economic interests and minimally beneficial to the environment with innovations that produce cost reductions and environmental gains. As illustrated in Figure 2, these programs enable the parties to make a mutually beneficial move from point X to point Y and to transform the regulatory relationship from a win-lose to a "win-win" scenario.

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Insert Figure 2 here

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We would not want to suggest, however, that the path from point X to point Y is a direct one. Economic and environmental interests are in both a competing and complimentary relationship. Figure 3 merges Figures 1 and 2 creating a "mixed motive" situation. While the stated goal might be to move from point A to point D, a more realistic representation of the negotiation is depicted by the move from the B-C line to E-F line, where mutual gains are maximized but not necessarily evenly divided.

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Insert Figure 3 here

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In this paper, we will analyze some of the reasons why programs that shift from a command-and-control regulatory mode to negotiated arrangements encounter resistance. We focus specifically on two programs in the areas of industrial pollution control and wildlife conservation, Project XL and Habitat Conservation Plans respectively. Project XL (eXcellence and Leadership) is a program that allows individual exemplar companies to have greater

flexibility in achieving the environmental objectives of the myriad of environmental regulations, provided that they reduce discharges below current regulatory standards. Habitat Conservation Plans (HCPs) are an emergent type of regulatory variant that offers landowners an opportunity to negotiate compliance with the Endangered Species Act while still retaining more commercial control of their land. Neither program involves modifying existing environmental standards but allows companies an alternative compliance process which they can negotiate on a voluntary basis. Each program calls for a form of negotiated agreement necessitating new forms of cooperation — not only between the government and the regulated community, but also among environmentalists, scientists, community representatives and others. In our view, these new programs involve shifts in thinking that conflict with both the cognitive biases of those involved in the process and the institutional biases of the organizations and systems in which they are embedded. In the rest of this paper we will elaborate on the mechanics of these programs and discuss the cognitive and institutional barriers to developing them effectively.

### **Reinventing Regulatory Policy: Encouraging Cooperation**

While regulatory reform has been an initiative of every president since Gerald Ford, it has met with limited success (Weidenbaum, 1997). Most recently, in 1996, the Clinton Administration pledged the goal of “reinventing government” by re-evaluating the overall regulatory process (Council of Economic Advisors, 1996). One of the primary initiatives of this effort, developed under the National Partnership for Reinventing Government (formerly the National Performance Review), began the task of replacing command-and-control regulation with service-based and innovation-oriented programs. In particular, the initiative focused on four tasks: eliminating obsolete regulations; rewarding environmental results that cut red tape; creating grass roots



partnerships rather than Washington based federal efforts; and negotiating with the regulated community rather than dictating standards (National Performance Review, 2000). Elaborating on this latter task, the federal government set out to encourage consensus-based rule making, to improve regulatory science and to encourage more innovative approaches to regulation (National Performance Review, 1993a, 1993b). The Clinton Administration anticipated that Project XL and the use of Habitat Conservation Plans, designed around the objective of fostering cooperation through negotiation, would serve as exemplars of the reinvention initiative.

### **Industrial Pollution Control and Project XL**

The Environmental Protection Agency regulates industrial pollution through a wide variety of regulations covering various media and sources. These laws are based on a command-and-control format, are segmented by media (such as air, water, hazardous waste, etc.), and are generally in the form of uniform technology requirements based on what is the best presently available. Yet, the complexity and level of control of these regulations has grown to unwieldy proportions over their thirty-year history. Observing deep and fundamental flaws, the Mellon Foundation charged that "the system's priorities are wrong, it is ineffective in dealing with many current problems, and it is inefficient and excessively intrusive ... The future system should be results-oriented, integrated, efficient, participatory, and information rich" (Davies and Mazurek, 1997: 48).

In response to such criticism and the President's call for reinventing government, the EPA has set itself on a series of "high-priority and significant actions aimed at improving the current regulatory system and laying the groundwork for a new system of environmental protection." These efforts are designed to "achieve better environmental results through the use of innovative

and flexible approaches to environmental protection,” by promoting private sector innovation, increasing community participation and making "it easier for businesses to comply with environmental laws by offering them compliance assistance and incentives to prevent pollution at its source” (US General Accounting Office, 1999: 22-23). One prominent example of this initiative is Project XL.

Introduced in May 1995, Project XL is intended to foster cooperation between the EPA and regulated companies in the development of more cost-efficient and effective environmental protection. It is a pilot program with the explicit agenda of supporting projects that produce innovations that are transferable to other facilities. To be eligible, companies must demonstrate that through environmental management or technological innovation they can produce "superior environmental performance” (SEP) as compared to a baseline projection from the status quo. The project must produce private and regulatory cost savings, be supported by stakeholders, and avoid shifting safety risks to other potentially affected parties (US EPA, 1999). In essence, the EPA offers regulatory flexibility with accountability in exchange for new learning, beyond-compliance environmental management, and stakeholder involvement. Approval of an XL permit considers the compliance history of the applicant firm, the input of affected parties (e.g., community groups, and local and national environmental interests), and monitoring protocols that keep the agencies and other stakeholders abreast of project performance through a regular reporting scheme (Robertson and Jett, 1999).

Unfortunately, Project XL's success rate has been mixed. The number of projects approved and implemented has fallen short of EPA's initial learning and reengineering objectives. While there are nearly 27,000 facilities that release hazardous and toxic materials (those filing Toxics Release Inventory Reports with the Environmental Protection Agency), only

three XL projects were proposed in 2000. As shown in Figure 4, the number of approved XL projects remains low and agency representatives are searching for ways to gain greater involvement in the program from the regulated community.

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Insert Figure 4 here

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### **Endangered Species Protection and Habitat Conservation Plans**

Similar to the Environmental Protection Agency, the Departments of the Interior and Commerce have been undertaking regulatory reform in the area of endangered species protection. The Endangered Species Act (ESA), often seen as one of the powerful, yet inflexible and controversial regulatory programs (Lowry, 2000), provides another opportunity for reinventing government. Enacted in 1972, the Endangered Species Act prohibits the “take” of any federally listed animal or plant species considered “endangered” or “threatened” on public and private lands. To “take,” as defined in the ESA, means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect or attempt to engage in such conduct” (ESA, Section 3(18)). This includes any habitat modification that impairs species reproduction. The prohibition on taking protected species has traditionally resulted in the imposition of severe land-use restrictions.

Overall, critics of current ESA implementation charge that it has public costs in terms of excessive administration, enforcement, and litigation as well as private costs in terms of diminished property rights. For private development interests, restrictions on their lands appear to violate sacrosanct private property rights without just compensation. Critics of the program argue that this imposition causes landowners to oppose species protection as contrary to their own economic interests. The ESA, for example, imposed major restrictions on the timber

industry with the listing of the northern spotted owl in 1991. For the timber industry at large, a long protracted battle with the government ensued, resulting in some relaxed restrictions for smaller timber companies (Westneat, 1996) but significant restructuring of the northwest industry as a whole.

This adversarial conflict creates private incentives that are contrary to the objectives of species protection, for instance, to destroy species habitat for fear of government intervention or, in the words of one landowner, “shoot, shovel, and shut up” (Crismon, 1998). The case of Ben Cone is an example of a logger who sustainably managed a 10,000-acre tract of timber in South Carolina until the 1991 ESA listing of the red cockaded woodpecker threatened the commercial use of his property. Due to the presence of a couple dozen woodpeckers, his land was subject to harvesting restrictions on 1,560 acres. To avoid further restrictions, Cone clear-cut major portions of his remaining property (Baden, 1995). Although an exaggerated case, this highlights how adversarial conflict on species protection can harm both private and public interests.

Private participation is necessary for species protection to be successful. According to the United States Government Accounting Office (GAO), more than a third of the 1,000 animal and plant species listed as endangered can be found only on private property (Cohn, 1998). There is also a growing consensus among biologists that we must move away from an orientation towards individual species protection and press instead for more holistic habitat conservation (Noss, O’Connell and Murphy, 1997). This shift increases the need for private interest participation in species protection because habitats know no boundaries between public and private lands.

In an effort to foster private interest participation and develop solutions beyond traditional methods of command-and-control species regulation, reform efforts have promoted

the use of Habitat Conservation Plans (HCPs). Congress introduced HCPs in 1982 as an amendment to the ESA under Section 10(a)(1)(B). The intent of Congress was to integrate a broad-based ecosystem-oriented planning mechanism into the objectives of species protection while also creating greater regulatory certainty for private landowners in the future in exchange for enhanced habitat conservation. Specifically, an HCP allows for the “incidental taking” of endangered species in exchange for a commitment by the landowner to provide a more extensive habitat design intended to provide enhanced protection for the species over a longer time horizon (U.S. Department of the Interior, Fish and Wildlife Service, et. al., 1996).

However, for the first ten years of the program, HCPs saw little use (Noss, O’Connell and Murphy, 1997). It has only been since 1995, with the encouragement from Secretary of the Interior, Bruce Babbitt under the Clinton administration that plans in excess of 1,000 acres were proposed and HCPs emerged as a planning tool consistent with the original intent of Section 10. Overall, HCPs have met with only moderate success. Shown in Figure 5, the government has approved only 250 HCPs since 1983. These include several large acreage plans for timber companies including Weyerhaeuser, Plum Creek Timber (a detailed analysis of the Plum Creek Bull Trout HCP can be found in Troast, Riley, Hoffman, and Bazerman, 2000), Pacific Lumber, International Paper, Union Camp, and MacMillian-Blondel. While some have lauded these HCP initiatives, others see them as a means for the industry to circumvent the ESA (Cohn, 1998). As with Project XL, HCPs have yet to be fully accepted as a new form of cooperation and neither have achieved the level of adoption hoped for by policy reform advocates. In the next section, we will consider obstacles in gaining their acceptance.

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Insert Figure 5 here

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## **Obstacles to the Adoption of Project XL and HCPs as the Dominant Design**

Despite the as yet unrealized potential of these programs, the concept of negotiated outcomes remains an attractive alternative to the command-and-control aspects of regulation. Through Project XL and HCPs, the government acts as “collaborator” rather than arbiter of the rules (Skocpol, 1985), working with business to develop better pollution control or habitat conservation through negotiation rather than top-down control. These programs offer a new architecture that emphasizes performance-based systems (that specify desired outcomes) rather than technology based standards (that prescribe methods of compliance) while more effectively engaging the broader community (Sabel, Fung, and Karkkainen, 1999). Logically, this would appear to be a better alternative than protracted compliance battles that fill overcrowded court dockets. In a collaborative arrangement, business, government and others can increase the knowledge base that will improve environmental principles and practices over the long term.

Project XL and HCPs represent a new platform for policy implementation, a competing policy design to the presently dominant structure of command-and-control. We are presently in a period of discontinuity in which the existing regulatory systems are seen as inconsistent with emerging goals or objectives that seek to satisfy both environmental and environmental objectives. These new programs can be seen as variants in the challenge to become the "dominant design"(Anderson and Tushman, 1990) in industrial pollution control and endangered species protection. Their emergence represents the beginnings of a transition from an era of incremental change based on the status quo to an era of ferment (Anderson and Tushman, 1990) where competing designs seek market acceptance and legitimacy. The ultimate dominant design will emerge among the competing models promoted by rival organizations, strategic alliances and governmental regulators (Tushman, Anderson, and O'Reilly, 1997). Hence the process is

strategic, political, and social with organizations entering the process and attempting to direct its outcome. The obstacles to this process must also be seen in this way.

Resistance to the acceptance of programs like Project XL and HCPs come from years of history and practice that take the form of cognitive and institutional inertia. We argue that to create policy change, we must change how individuals think and how institutions guide that thinking. Both individual cognition and societal institutions act by force of habit, creating resistance to change and a rejection of new forms of regulatory policy. They present psychological and cultural constraints, which alter individual and organizational perspectives on issues such as pollution control and endangered species protection. To move beyond them, we must consider the interplay of varied organizational actors, and the contending logics, authority structures, and conflicts that occur among them (Ventresca and Washington, 1998). Conceptions of the value of endangered species protection, the sanctity of a pristine environment, the responsibility of the corporation toward protecting them and, the role of the government in motivating such action are all mediated by individual cognition and societal institutions (Hoffman and Ventresca, 1999). Only by identifying the core, taken-for-granted beliefs (or myths) that reside on both of these levels can we understand the persistence of inefficient regulatory designs and the barriers to new and more efficient forms of cooperation.

### **Cognitive Barriers to Efficient Environmental Cooperation**

Negotiators representing environmental and economic interests often reach solutions that are not on the efficient frontier as depicted earlier in Figure 3 because of the assumption that they have opposing interests. Bazerman (1983) labeled this assumption the “mythical fixed-pie,” highlighting the failure of negotiators to find mutually beneficial trades as a result of the myth

that what is good for one party is bad for the other party. As noted earlier, this is a maladaptive assumption in environmental disputes. Bazerman and Hoffman (2002) argue that the mythical fixed-pie is particularly strong in the environmental arena as a result of the mistrust and antagonism between parties. Furthermore, highly charged emotional issues, typified by environmental versus economic disputes, often create additional biases - such as pseudo-sacredness and egocentrism - that exacerbate the fixed-pie assumption. We will discuss each in turn.

**The mythical fixed pie reduces the possibilities for beneficial trades.** The fixed-pie assumption creates tremendous cost to the disputants, the environment, and society. Bazerman, Moore, and Gillespie (1999) used the false logic of the fixed-pie to explain the inefficiency in the case of hazardous waste dumps and Superfund laws (CERCLA). Toxic waste clean up is a complex problem, offering a range of alternative approaches, yet, the fixed-pie perspective is typical among protagonists. One article advocating tighter regulation of hazardous waste dumps declared, “We must pass an effective Superfund law. If the polluters win, then we lose—our tax money, our environment, and our health” (Pandya, Rosenfeld, and Caffee, 1998). Yet, the government and industry have spent more on legal costs to fight over Superfund cleanup liability than it would have cost to clean up the sites. Obviously, these actions are not on the efficient frontier.

The mythical fixed-pie prevents disputants from cooperating to integrate their interests. Negotiators may not be opposed to trade-offs, and identifying trade-offs can be quite easy when negotiators seek them. Yet, negotiators fail to identify them because of the assumption that the parties' interests are perfectly opposed. The fixed pie assumption may be the most formidable barrier our mind erects to wiser environmental agreements. Thompson and Hastie (1990) found



that sixty-eight percent of negotiators studied expected no opportunities for mutual gain or for reaching an integrative agreement. This is a false assumption in virtually all complex negotiations, and is certainly false for all negotiations with Project XL and HCPs. But, growing the pie requires the exchange of information. Experimental negotiation research suggests that a greater exchange of information would allow business and ecological interests to generate wiser environmental agreements as it is consistently related to improved negotiation performance (e.g., Weingart, Thompson, Bazerman, and Carroll, 1990). After reviewing thirty-two negotiation experiments, Thompson and Hrebec (1996: 405) conclude “remarkably few people provided or sought information about the other party’s interest during negotiations (about 20% and 7%, respectively).”

The mythical fixed pie results from the tendency of people to overgeneralize purely competitive situations instead of seeing them as mixed-motive situations. Bazerman (1983) suggests that the fixed-pie assumption is rooted in social norms that lead us to interpret most competitive situations as win-lose. Furthermore, many of our judgmental strategies become institutionalized as our organizations adopt the competitive mindset of competitive individuals (Bazerman, 1983), making it difficult to create sustained change in individuals, groups, or organizations. For example, lawyers play a critical role in environmental disputes, as a high percentage of environmental disputes are either resolved in the courtroom or against the backdrop of pending legal action. Unfortunately, the dominant orientation of the American legal system is win-lose and extremely competitive, and trades are likely to be lost (Bazerman, Moore and Gillespie, 1999). The parties in environmental disputes assume that the core issue is *tougher* or *stronger* regulation, and miss opportunities for *wiser* regulation.

**Pseudo-sacredness exaggerates the claims among the parties.** Creating the trades to overcome the mythical fixed-pie is exacerbated by a (often false) perception that issues in environmental negotiations are sacred. Environmentalists take positions that no tree should ever be cut in a National forest, while landowners take the view that no one has a right to tell them what can be done on their land. Both parties treat their issue as sacred, and miss the wise trades that can be created through mechanisms such as HCPs and Project XL. Critics of HCPs have shaped their arguments in the context of the sacredness of any endangered species, thus questioning a program that supports the incidental taking of some species. In an editorial that appeared in *The Seattle Times*, members of RIDGE, a local environmental group posed the question: “Can ecosystem destruction be compensated? Or mitigated?” (Fraser and Belew 1996). The answer was “no.” The claim of sacredness eliminates the possibility for any discussion that would allow the discovery of possible trades. Bazerman, Moore, and Gillespie (1999) and Thompson and Gonzales (1997) recognize that there are issues that a party would never trade under any realistic circumstance, but argue that there exists another group of issues that are labeled sacred, but for which the potential for trade does exist.

**Egocentrism creates different views of fairness.** Another important cognitive barrier to creating wise trades is the psychological tendency to see the fair resolution of a dispute in a way that is favorable to one’s interests. Egocentrism is a self-serving bias in one’s honest assessment of what would be fair (Messick and Sentis 1985; Wade-Benzoni, Tenbrunsel, and Bazerman 1996). Wade-Benzoni et al. (1996), for example, show that much of the problem in fisheries crises is that the multiple constituencies each simply want what is fair, but have very different notions of what would constitute a fair settlement. As a result, each constituency harvests that amount of fish they believe they are entitled to, and collectively, too many fish are taken.

**Cognitive barriers often lead to mistrust.** Collectively, the mythical fixed-pie, pseudo-sacredness, and egocentrism create an environment of mistrust, as each competing interest believes its own views, and lacks the ability to find creative trades. Mistrust becomes another barrier. Citrus juice manufacturer Jack M. Berry, Inc. was the first Project XL candidate the EPA approved approximately one year into the program. A government case analysis of the project described how company and government negotiators overcame long-established mistrust to build a working partnership:

The industry routinely looks at government as a threat. Berry employees often felt intimidated by government personnel, fearing they might give the wrong answer or cause a violation and lose their job. The project succeeded in eliminating this intimidation; employees are now comfortable talking with government personnel. No other company in the industry thought the Berry project could be done. ... The project, however, succeeded in proving teamwork is possible and makes sense. It is important to be open and flexible with people in order to build trust. The dynamics of people working together is very important in this kind of project (US EPA, 1998b: 35).

Collectively, we see the mythical fixed-pie, pseudo-sacredness, and egocentrism as cognitive barriers exacerbating the problem of informing protagonists to use new institutions that help grow the pie of resources. We do not see these barriers as insurmountable, but we do believe that they need to be dealt with in order to institutionalize new and improved ways of resolving environmental disputes.

## **Institutional Barriers to Efficient Environmental Cooperation**

Beyond the level of the individual, resistance to new forms of cooperation can emerge from institutions (Scott, 1995) embedded within organizations and social structures. Institutions are the laws, rules, protocols, standard operating procedures and accepted norms that guide organizational action. Scott (1995) distills theory and empirical research on institutions into three foundational pillars: regulative, normative, and cognitive aspects. Regulative aspects of institutions are based upon legal sanction to which organizations accede for reasons of expedience. Normative aspects of institutions are morally grounded, to which organizations will comply based on social obligation. Cognitive aspects of institutions reference the collective constructions of social reality via values, language, meaning systems, and other rules of classification embodied in public activity (Zucker, 1983). These three aspects are operationally intertwined (Scott, 1995; Hirsch, 1997) and are present in all forms of institutional control (Greenwood and Hinings, 1996). So, while Project XL and HCPs may represent shifts in the regulative elements of institutions, they trigger deeper institutions in the normative and cognitive levels. At these levels we can begin to see the sources of conflict and resistance to their adoption. In this section, we will analyze seven.

### **The shifting role of government as negotiator rather than arbiter of the rules.**

Regulation characterized by a command-and-control relationship establishes the government as the arbiter of the rules (Skocpol, 1985). In this role the government can be seen as dictating what is best for the environment and the public, rather than facilitating collaborative problem solving with industry. This role is considered appropriate by society for exercising power and insuring appropriate behaviors within industry (Powell and DiMaggio, 1991). This is the established order

and the shift from command-and-control to negotiated self-control involves new sets of values based on a new level of trust within government for the regulated community.

Project XL and HCPs represent a revolutionary value change in the government's regulatory relations (*Environment Today*, 1995). In order for cooperative regulatory programs to build creative partnerships, trust emerges as a critical component of the collaborative process (Ruckelshaus, 1996). Trust is a salient institutional concept conferring legitimacy on the evolution of formal social structures (Zucker, 1986) and is an essential component in collaboration for the efficient exchange of information (Ring and Van de Ven, 1994; Wasserman and Galaskiewicz, 1994). Government must trust industry as a partner in working towards the common objective of efficient environmental protection (Marcus, Geffen and Sexton, 2002).

However, historically adversarial relations coupled with a deeply entrenched belief in the mythical fixed pie create resistance to change. The US government has traditionally shunned creating the kind of cooperative regulations that are evident in Asian and European economies. Voluntary information sharing and regulatory flexibility are at the heart of Project XL and HCPs, yet both are anathema to traditional industry- regulator relations. For these programs to achieve their objectives, former regulatory adversaries must discard long-entrenched positions to take on new roles as negotiators, partners, and public facilitators in environmental management. John Kessler, director of EPA's emerging sectors and strategies division, observed early in the program that, due to the novelty of the Project XL concept, these were roles that both sides had to learn as they enacted them. Lingering suspicions and deep cultural rifts added to the challenge of reinventing company, government and stakeholder relations (Jones, 1996). As one editorialist quipped: "Does anyone truly believe that any government bureaucracy - especially one so deeply suspicious of the regulated community, an agency that measures its worth by its annual tally of

convictions of environmental miscreants - would actually be willing to bargain away its birthright?" (Harris, 1996a: 4). The notion of giving up this form of control as well as the idea of "negotiating" environmental improvements may appear to some as contrary to what they associate with the proper purpose and role of the government.

**The shifting role of industry as environmental strategist and policy entrepreneur.**

The concept of developing "creative partnerships" implies the use of new collaborative institutions to assist in reinventing regulation. More importantly, this new partnership requires that the regulated community adopt a new role of seeking out innovative ways to protect the environment that are complimentary and even enhancing of their strategic and economic interests. The collaborative process offered by Project XL and HCPs are designed to encourage managerial strategic action by industry entrepreneurs in terms of both promoting private environmental innovation and private involvement in policy development. Programs like Project XL and HCPs are attempts to promote environmental leadership in a way that merges a firm's economic and environmental interests. However, the command-and-control and adversarial form of environmental regulation has historically stymied a proactive approach to innovation within the private sector (Porter and van de Linde 1995).

Beyond individual firm strategy, these programs are designed to incent the regulated community into shifting from opposing environmental policy to actively taking part in its formation. There is tremendous risk in this shift given the uncertainties of the ultimate policy outcome. By participating in cooperative compliance programs, they become proactive entrepreneurs in leading institutional change (Aldrich and Fiol, 1994). Encouraging private industry leadership through this dual shift in roles is critical to providing legitimacy and encouraging dominant designs in environmental policy (Troast, Hoffman, Riley, and Bazerman,

2000). Environmental innovation, like all technological innovation, requires an intimate understanding of the problem and potential solutions and therefore is best driven by general management not government management (Morone, 1993).

**The shifting roles of new stakeholders in the regulatory process.** As the roles of government and industry evolve with the shift to cooperative compliance regulation, so too will the roles of other stakeholders. Though “the public,” which includes environmentalists, community groups and other interested parties, were not traditionally a direct party to the command-and-control process, they now have a significant and direct role in negotiated collaborative agreements between business and government. This “stakeholder effect” has a major influence on both HCPs and Project XL, in that public comments clearly influence the actors to the negotiation (Noss, O’Connell, and Murphy, 1997; Steinzor, 1998). When government acts as arbiter of the rules, there is a natural alignment between the state and the public. This alignment is socially constructed and embedded in a long historical context. As the government becomes a collaborator with business, a natural shift occurs. Both companies and the government must become central facilitators in multi-party stakeholder processes and overcome the perceptions of bias that might be created through the engagement of particular stakeholders or in the dissemination of information (US EPA, 1998a, 1998b; Spyke, 1999).

But, in many cases, other stakeholder groups will likely perceive that they must function as protectors of the environment, perhaps in the role (actually or perceived to be) abdicated by the government. This creates a growing and powerful purpose for non-profit conservation groups particularly in the context of ecosystem and watershed management projects (Breckenridge, 1999). The “public interest representatives” include local governments, academics, impacted business interests as well as national and local environmental groups (Ayres and Braithwaite,

1992). This new role for previously tangential stakeholders will be unfamiliar and challenging to all involved.

Corporate officials may feel frustrated at dealing with what they perceive to be unrealistic expectations of citizen involvement in private operations. "People have misconstrued what the stakeholder process is all about," one Intel manager commented and queried: "Citizens are going to make decisions...that are binding on Fortune 500 companies?" (Skrzycki, 1997). If newly powerful activists see their role as peripheral to the negotiation process, they may resort to disruptive rather than collaborative action.

Regulators must be cognizant of this unfamiliar position and effectively mediate both the disputes between citizen activists and companies seeking relief from the strict letter of the law (Geltman and Skroback, 1998) and the proper form and forum for that dispute. "Public interest representatives must perceive that their participation (for Project XL) is solicited sincerely, and not as political cover for industry negotiations with regulators. They must also be convinced that reinvention will, at the very least, maintain environmental quality and possibly deliver performance superior to the status quo" (Steinzor, 1998: 201). When they cannot, a new party to this process - third-party facilitators - must be introduced to the process to ease the tensions between the roles of interested party and process orchestrator (US EPA, 1998a; Blackman and Mazurek, 1999).

In order to be successful, collaborative regulation must create an effective means to engage stakeholders in the process of generating new and relevant knowledge. Although often identified as a strength of the Project XL program, the management of stakeholder involvement became a serious source of contention with critics from both industry and environmental groups (*Environment Manager*, 1998). While some respondents to EPA surveys lauded the "trust and



confidence [built] between local community, industry, state, and EPA” and the enhanced quality of agreements produced by this more “holistic approach,” others complained about the time consumed by the protracted consultation processes and the companies’ asymmetric control over processes to which other stakeholder reacted.

**The perceived challenge to the pre-eminence of science.** In the shift to cooperative compliance, another interest whose role is challenged is that of the scientific community and more importantly, the scientific data and conclusions they offer. Historically, environmental protection was characterized by such extreme abuses that curbs and controls dictated by clear scientific evidence provided a logical means to preventing equally clear environmental threats (such as spontaneous combustion on lakes and rivers) (Portney, 1998). The value of scientific assessment has assumed the level of pseudo-sacredness discussed earlier. But the past twenty-five years has witnessed a less assured and more contentious debate over the best science for protecting the environment. Both Project XL and HCPs are designed to follow the “best available science” but the debate over what is the “best science” has often become politicized; seen as shaped by the professions who devise the frameworks, typologies and guidelines (Scott and Backman, 1990) that constitute the collective knowledge.

Debates surrounding the science of climate change, alar, and dioxin all illustrate that we increasingly face the reality that environmental problems are more complex and scientific knowledge is more subjective and less certain than entrenched interests care to recognize (Jasanoff, 1990). Despite the varied opinions, science becomes the “carrier,” a medium for exchange of knowledge, that serves to both restrict and enable the behavior of the actors in the negotiation (Scott, 1995). The success of collaborative forms of regulation must recognize that scientific opinion will become part of the currency of the negotiation. Protecting the real and

perceived integrity of scientific analysis will pose a formidable barrier to cooperative compliance.

**The perceived incompatibility of economic and environmental goals.** Much of environment-competitiveness debate is premised on the fixed-pie view that the interests of industry and ecology are at odds. Economic and material growth is taken for granted as mutually incompatible with environmental concerns. At the core, the prevailing belief is that environmental protection must, by its very nature, reduce economic competitiveness (Walley and Whitehead, 1994; Palmer, Oates and Portney, 1995). This worldview perpetuates the win-lose mentality behind environmental advances and restrains parties from seeking opportunities for mutual gain through cooperative rule-making such as Project XL and HCPs. Porter and van der Linde (1995) argue that this notion of an inevitable struggle is the result of a static view of regulation. If one assumes that firms in a static system have made cost minimizing choices, regulation clearly raises costs, but if success is measured in terms of continuous innovation that creates competitive advantage, a new paradigm emerges. When regulation promotes technological advantages that offset compliance costs, firms can gain comparative advantage through “innovation offsets.” This argument shifts the focus from the social benefits of environmental regulation to the profit maximizing decisions of firms in managing “private costs” of compliance. But unfortunately, win-lose perspectives of the economics-environment relationship are embedded and perpetuated by many institutions of society, including regulatory standards, educational curricula, engineering and operating protocols, and international regimes (Hoffman and Ventresca, 1999).

**The challenge of organizational inertia within regulating agencies.** One of the goals of reinventing regulation is the economic objective of reducing compliance costs for business,

while creating efficiencies by streamlining the government bureaucracy. The tension of competing political ideals within diffuse large bureaucratic forms contributes to limited and incremental change within the federal government (Lindholm, 1959; Kingdon, 1995). One of the goals of reinventing government is directed at “transforming organizational structures” by eliminating top-down bureaucracies that are seen as “rigid, hierarchical and segmented” (National Performance Review, 1993a, 1993b). The restructuring goals include reducing the size of management control positions, increasing span of control, promoting inter-agency collaboration and creating self-managing work teams. Although these goals would all appear to support collaborative forms of regulation, it must also be acknowledged that this shift involves re-thinking what has been engrained within the government bureaucracy over the last thirty years. Some may resist this learning process as contrary to their conception of the underlying purpose of the agency or as a threat to their own political interests, competencies, skills, or personal security.

The shift from command-and-control to cooperative regulation may be competence enhancing for some and competence destroying for others. Staff within enforcement departments or specific media based programs may resist the transfer of some of their responsibilities to other initiatives since the very act may minimize their own usefulness. In the face of such changes, self-preservation may override concerns for environmental or economic objectives in decision making. The result may be organizational confusion or battles for survival among rival departments. Anne Kelley, former Special Assistant to the Director of the New England Region of the EPA was responsible for reinvention efforts and Project XL. “I represented a tiny office that came begging for open-mindedness but unfortunately most in the agency locked arms against reinvention” (Kelley, 2000). Conversely, without a clear view of the ultimate objective of

negotiated compliance, a shortage of available or capable managers may pose additional problems resulting in project delays, personnel changes, and shifting standards (Noss, O'Connell, and Murphy, 1997; Steinzor, 1998; Marcus, Geffen, and Sexton, 2002). In several Project XL negotiations, companies complained that EPA staff assigned to the project lacked the authority to make decisions or to speak for their agencies, and that they commanded insufficient resources (e.g., travel budget) to support the project adequately. Inappropriate staff assignments and government team turnover produced frustrating delays from companies' perspectives (US EPA, 1998b).

In 1999, the US Government Accounting Office (GAO) called attention to this organizational inertia, pointing out that the current regulatory system has "led to, and tends to reinforce, many of the existing practices and behaviors that EPA is seeking to change ... the agency faces several challenges, including helping its rank-and-file employees to understand and support changes to the current regulatory system and obtaining consensus among the agency's varied stakeholders on what these changes should be" (US GAO, 1999: 27). In analyzing Project XL specifically, another GAO report concluded that the most important obstacles to the program were (a) the difficulty of obtaining commitment from agency staff. The staff were accustomed to medium-by-medium approaches and reluctant to abandon them and (b) the difficulty of obtaining universal endorsement from stakeholders. Because EPA was concerned about litigation, it was disinclined to move forward unless it had complete stakeholder backing (US GAO, 1977).

**The need for certainty among landowners/corporations and the need for flexibility under changing scientific opinion.** There is an inherent conflict within the form of negotiated compliance programs between the interests of market certainty and the interests of scientific advancement. Companies seek certainty in the market and regulatory environment so as to make

long-term investment and market forecasts. Environmental advocates and regulating agencies seek flexibility in responding to newly emerging environmental threats as scientific analysis reveals them. Command-and-control regulations have established a known and understood method for providing both. They dictate clear standards for compliance and an established process for changing those standards. Since Project XL and HCPs change both these considerations, corporations may prefer "the devil they know to the devil they don't know." Negotiated policy development can degrade into a contest between how much certainty will be granted versus how much environmental protection will be extracted. The cooperative spirit of the program degenerates into another type of win-lose negotiation.

For example, Project XL suffered its first major setback in 1996 when 3M abandoned negotiations because it claimed EPA had demanded guarantees so stringent as to provide the company with little or no margin of error (*Environment Manager*, 1996). The EPA was criticized for failing "to entrust 3M, a company with a proven record of exemplary environmental performance, to take on the responsibility and accountability of proving that Project XL will result in superior environmental performance" and for under-weighting other issues such as economic benefits, administrative cost-savings, and increased stakeholder engagement (Harris, 1996b: 1). In response, the EPA argued that if the facilities were to be granted the license for regulatory flexibility, they must provide a guaranteed level of "superior environmental performance" (SEP) - the greater the economic benefit the greater SEP required. The negotiation ultimately failed because each side could not agree on a definition of SEP and because 3M did not offer EPA enough guaranteed SEP to justify the flexibility the company was seeking (Marcus, Geffen, and Sexton, 2002: 221). At a time when the EPA most needed to build trust

and confidence with its corporate partners, it was being accused of being completely out of touch with the competitive business realities (Harris, 1996b).

### **Conclusion**

In this paper, we have highlighted an important point about new forms of regulatory cooperation. Programs such as Project XL or HCPs represent more than just the implementation of a new rule change. They represent a shift in the values that underlie both how the process of regulation is to be employed and how the roles of the many parties involved will change. The values underlying these shifts may be at odds with the taken-for-granted values that have developed over the past thirty years. The roles of government, industry, science, and society at large as well as the form of their interaction will be altered and many will respond by resisting such change. This resistance is inevitable and must be expected until the process is legitimized. The past thirty years of regulatory history has developed forms of cognitive and social inertia that cannot be overlooked. We cannot expect this inertia to be broken down without persistent efforts to combat the cognitive and institutional barriers that underlie individual and societal sources of resistance. Identifying these barriers has been the objective of this paper.

By exposing the sources of cognitive and institutional resistance, we begin to understand why programs such as Project XL and HCPs do not emerge as dominant forms and spread rapidly across the policy landscape. Although long-awaited and widely recognized as the path to the future, these types of negotiated solutions present fundamental challenges to the ways in which we as individuals think about environmental management problems and to the institutions our society has developed to resolve them. Fundamental change processes — which we argue

Project XL and HCPs represent — require time and friction to break down and reconstruct value systems and taken for granted beliefs.

At the individual level, we have to change the way we think about problems in order to recognize potential blind spots in our own perspectives and to realize the potential for more efficient solutions. At the organizational and societal level, we have to overcome the stasis created by bureaucratic inertia and myopic risk aversion and boldly restructure the roles of actors in the policy arena. Agency regulators and company managers must shift from being rule enforcers and compliers (sometimes avoiders), respectively, to trusting collaborators in the development of innovative environmental policy solutions. Private as well as public-sector managers must be recognized for their potential to become the next generation of policy entrepreneurs. We must find a new, more engaged role for interested and affected parties in the development of these policy solutions, but one which balances the importance of information disclosure and public participation with the rights of proprietorship. We must push the bounds of existing scientific knowledge and traditional approaches to the study of environmental problems. Where necessary, existing standards must be broken-down and adjusted to new metrics for success whose explicit objective is to maximize the economic and environmental values.

In looking to the future, we must adjust our metrics for determining the success or failure of these groundbreaking programs. The adoption of a dominant design follows a contagion pattern as depicted in Figure 6. At the early stages of a competing policy design like Project XL or HCPs, acceptance rates are low. Few companies will be expected to participate as the benefits are unclear and the outcomes unknown. But, as acceptance grows, a threshold effect occurs where adoption is rapid until dominance occurs. If this model is to be applied to the

environmental regulatory context, then we propose that the efforts behind collaborative variants must strive to reach that threshold point.

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Insert Figure 6 here

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An important factor in this effort is understanding the differences between organizations that adopt early in this process and those that adopt late, as depicted in Figure 7. Dominant designs are not known *ex ante*, but firms that attempt to promote them are willing to take the risks inherent in eras of ferment. They are not merely organizations that have positive environmental records. Such firms must be highly entrepreneurial, willing to learn-by-doing and thus, actively shape technology and policy cycles (Tushman, Anderson, and O'Reilly, 1997). They are outliers in the environmental arena, seeking to differentiate through innovation and gain competitive advantage from opportunities in environmental strategies. Conversely, those that adopt at the threshold or after are more risk averse. They do not seek differentiation on environmental issues and prefer the predictability of traditional regulatory structures to the uncertainty of new programs. Targeting the proper type of participating firm is critical for minimizing failures and maximizing successes towards reaching the threshold point.

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Insert Figure 7 here

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Overall, to gain ultimate acceptance of collaborative programs, regulatory officials must understand the types of value-based sources of inertia that will create resistance to change. They must identify the types of organizational outliers that seek to shape the institutional environment and adopt multiple internal perspectives (as enforcers and innovators) to manage the policy



innovation process (Tushman, Anderson, and O'Reilly, 1997). For these changes to be lasting, we must resolve the value conflicts that form these sources of resistance. We must develop the trust among government agents, company managers, and citizen activists and help them to move from being the principal parties engaged in adversarial conflict to the principal parties engaged in sustainable negotiated solutions.

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