Compliance and Enforcement of Environmental Regulation: What Makes an Excellent Regulator?

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Introduction

For present purposes, I take the laws and regulations as givens and the central question to be how to achieve excellence in implementing them, this being judged in terms of the conventional criteria of effectiveness, efficiency and equity (to which might be added legitimacy, which in practical terms, often equates to political acceptability). There are inevitable trade-offs to be made between these criteria. I do not address procedural matters.

My focus is on environmental regulation, and while my reflections may be capable of generalisation to comparable challenges in other spheres of social regulation, there will be others (economic regulation, systemic risk in financial markets, polycentric governance re climate change mitigation) where they will not.
The following sections addresses aspects of two of the questions posed for this Dialogue, namely:

(i)   How should a regulator pursue efforts to promote compliance or other desired behavior?

(ii)   How should the regulator interact with regulated entities and with a wide range of other interested groups and members of the public?

Choosing Intervention Strategies

My principal concern is with *how* to intervene in the affairs of regulated organisations to ensure compliance and facilitate enforcement ('intervention strategy' as distinct from resource allocation). Many regulators have given intervention strategy remarkably little attention, (manifest in the lack of sophistication or coherence of such strategies in many jurisdictions).This is surprising, given its importance to achieving effective environmental outcomes, and even more so, in light of the rich academic literature that has engaged with this question for over three decades.

My previous research identified five distinctive strategies (best regarded as ideal types) adopted by one or more of a sample of agencies in the US, UK and Australia and two others commonly referred to in the regulation literature (together with a hybrid approach which combines different strategies with varying degrees of success). These will be readily recognisable to students of regulation and are summarised in Box 1.

BOX 1: Regulatory Strategies: Models Identified in the Regulatory Literature

From a review of the regulatory literature seven distinctive (but often mutually compatible) regulatory enforcement and compliance strategies can be identified.

Advice and Persuasion: emphasises cooperation rather than confrontation, and conciliation rather than coercion. The aim is to prevent harm - achieved by bargaining, persuasion and negotiation rather than sanctioning. Recourse to the legal process here is rare, the assumption being that the majority of regulatees are willing to comply voluntarily.

Rules and Deterrence: emphasises a coercive, formal and adversarial style of enforcement and the sanctioning of rule-breaking behaviour. It assumes that regulatees are rational actors capable of responding to incentives, and that if offenders are detected with sufficient frequency and punished with sufficient severity, then they, and others will be deterred from future violations.

Risk-Based Regulation: argues that the kind of intervention in the event of non-compliance should depend upon an evaluation of degree of risk to the environment posed by the infraction and calculations regarding the impact that the noncompliance will have on the regulatory body's ability to achieve its objectives.

Meta-Regulation: involves placing responsibility on the regulated organisations themselves (usually large organisations) to submit their plans to the regulator for approval, with the regulator's role being to 'risk-manage' the risk management of those individual organisations. The goal is to induce companies themselves to acquire the specialised skills and knowledge to self-regulate, subject to external scrutiny. Accordingly the regulator's main intervention role is to oversee and audit the plans put in place by the regulated organisation. Where it finds inadequacies it may invoke a responsive approach as described above.

Responsive Regulation: suggests that best outcomes will be achieved if inspectors adapt (are responsive) to the actions of regulatees. Regulators should explore a range of approaches to encourage capacity building but be prepared to escalate up a pyramid of sanctions where these are unsuccessful. But escalation occurs only reluctantly and only where dialogue fails, and regulators de-escalate when met with a positive response. Indeed, it is preferable to escalate up a pyramid of supports, praising and rewarding good behaviour and only resorting to the pyramid of sanctions where such behaviour is not forthcoming. Implicit in Responsive Regulation is a dynamic model in which the strengths of different forms of regulation compensate for each other's weaknesses.

*Smart Regulation***:** expands on some of the insights of Responsive Regulation (in its original form) and the enforcement pyramid, by suggesting how markets, civil society and other institutions can sometimes act as surrogate regulators and accomplish public policy goals more effectively, with greater social acceptance and at less cost to the state. It also argues that complementary mixes of enforcement strategies and tools will be more effective than 'stand alone' strategies.

Criteria Strategies: provide inspectors and other decision-makers with a list of criteria which they should consider in arriving at a decision in any given case. There is no prescriptive formula and which mechanism(s) will be used in any particular case will depend on the circumstances.

Which approach or approaches to intervention would an 'excellent' regulator adopt? There are many variables and it is risky to make sweeping generalizations about when and to what extent particular approaches are likely to 'succeed' or 'fail' in

controlling behaviour. Nevertheless, the accumulating body of research suggests that regulation-induced fear of legal punishment, social license pressures, and the normative commitments of a great many regulated enterprise managers, acting together, are sufficiently powerful to induce relatively high levels of regulatory compliance in a great many regulatory programs and contexts. What would excellent regulators do to harness these variables? How would they best achieve regulatory success?

Context counts

The relative strengths and weaknesses of regulation vary substantially with the context. In broad terms, the more complex the environmental problem, the more obvious become the limitations (and the inefficiencies) of direct ('command and control') regulation in addressing it. For example, it is one thing to regulate point-source pollution caused by large, homogeneous industrial facilities operating within a single jurisdiction – and regulation has done a good job of curbing such pollution. But direct regulation is a crude and often inappropriate tool for engaging with such complex problems as diffuse source pollution from agriculture, or biodiversity loss on private land.

Accordingly, excellent regulators, to the extent that they have the statutory powers to do so, must invoke different strategies in different circumstances. There is no single template for regulatory excellence.

Not only do different types of environmental problem require different kinds (or combinations) of regulatory instruments, but they require regulators to adopt different approaches to compliance and enforcement. Large point sources, for example are readily identifiable and their size and impact on the environment justify repeat visits from regulators and enable the building of trust between regulator and regulatee and a long term strategy. They can also be subjected to social license as well as direct penalties. In contrast, small and medium sized enterprises (SMEs) are often hard to identify, let alone to visit given the vast disparity between the number of such enterprises and the number of regulators. Moreover, they are usually immune from reputational sanctions and often extremely unsophisticated in their understanding of their environmental obligations. Very different forms of engagement will be required, with greater emphasis on education and information, technological assistance, reliance on professional third parties as information disseminators, self-inspection and self-audit underpinned by (at least a perceived) credible threat of inspection and enforcement, industry blitzes, and considerable reliance on less resource-intensive instruments such as on the spot fines and administrative notices.

What this implies is that an excellent regulator must invoke different tools and strategies to engage effectively with different industries and different circumstances.

The fact that context counts also means that many of the intervention strategies summarised in Box 1 may work well in some circumstances but not in others. Risk based regulation for example, is of little use as an intervention strategy (or indeed as a resource allocation strategy) when the regulator knows so little about the target population that it cannot make any reasonable assessment of the risks caused by different types of enterprise within it (as may be the case with small

enterprises) or where only the risks of 'routine' compliance failures can be measured, but not low frequency high consequence events. Responsive regulation too, is likely to work better when the regulator has the opportunity to make repeat visits, than where at most, a single engagement is all that is practicable. Even strategies which regulatory scholars usually regard as too crude (such as 'rules and deterrence') can be effective (and arguably efficient) in dealing with certain populations.

While there are many variables that an excellent regulator needs to take account of, paramount are likely to be the different external pressures, skills, capabilities and motivations of regulated entities. Accordingly, the nature of the relationship between the regulator and regulatee can and should depend substantially on the characteristics of the latter and the resources available to the former. Different types of regulatees confront different external pressures and have different skills, capabilities and motivations. The environmental risks posed by different operations are also intrinsically different. Once again, best practice means applying different intervention strategies in different circumstances.

To illustrate, an environmental regulator could usefully think about its intervention strategy in different terms depending on: (i) whether the obligation-holder has self-interest in good environmental performance that goes beyond regulatory requirements; and (ii) the degree of environmental risk posed by the organisation's operations[1]. This might result in three main categories reflecting whether the regulator will have an ongoing relationship with the obligation-bearer and the type of engagement:
  (i) *Environmental Leaders:* Large, sophisticated organisations with self-interest in good environmental performance which require a licence, but which can also be motivated to go beyond compliance to some extent – for example, large reputation-sensitive companies which need to protect their 'social licence to operate'.
  (ii) *Reactive Licensees*: Other organisations with the capacity to cause major environmental harm – put broadly, other licensed premises.
  (iii) *Low Risk Enterprises:* Non-licensed premises which do not have the potential to cause major environmental harm, including many small and medium sized organisations, and individuals.

Having made this distinction, a different intervention strategy, or combination of strategies, might be applied for each of the three groups. Environmental leaders, for example, might lend themselves to Meta-Regulation, coupled with Responsive Regulation and Smart Regulation. Meta regulation would induce them to acquire the specialised skills, knowledge and risk management systems to self-regulate, while also ensuring external scrutiny. Underpinning Meta-Regulation with Responsive Regulation would provide a mechanism to manage the risk of backsliding, noting that the two strategies are complementary. Plausibly too, it might be possible to "help leaders to pull laggards up through new ceilings of excellence' (Braithwaite UBCLR 501). Significantly, large reputation-sensitive companies confront powerful pressures from concerned local communities (and sometimes from broader based environmental NGOs) and must protect their 'social licence'. Accordingly, harnessing third parties

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[1] The categorisation below was developed in a collaborative project with Christine Parker who contributed substantially to its development.

as surrogate regulators consistent with the precepts of Smart Regulation (on which see further below) would also be beneficial.

Reactive Licensees are a candidate for Responsive Regulation coupled with risk-based resource allocation and regulatory targeting to determine the extent of performance verification, reporting and monitoring activity required. Enforcement would be escalated, in accordance with the principles of Responsive Regulation, where dialogue fails and non-compliance continues. The responsive approach would be preferred to a risk-based approach because it provides considerably greater guidance as to the appropriate regulatory response. To the extent that regulatees in this group are reputation sensitive, Responsive Regulation might be strengthened by harnessing surrogate regulators.

In contrast, the regulator is unlikely to need to have regular contact with Low Risk Enterprises because of the lower potential for environmental harm and smaller scale of these organisations' operations. Responsive Regulation is unlikely to be appropriate because the regulator's infrequent contact with such organisations means there is little history on which to base a responsive interaction, and little opportunity for dialogue and repeat interactions. Likewise, a risk-based intervention strategy is inappropriate, as risk assessment by the regulator is impractical in these circumstances, the regulator having too little contact and too little information on which to base such an assessment (although of course risk assessment has been used at an earlier stage in terms of determining *where* to intervene). At most, low-resource strategies (eg internet/postal self-audits) might be justified to remind this group of their statutory responsibilities and how to discharge them.

Hybrids: Excellent regulators need to build in resilience. There are many ways of doing so. One is to develop a hybrid approach incorporating two or more of the strategies set out in Box 1 (as in the first two examples above). Such a combination might have value to the extent that it harnesses the strengths of one strategy while compensating for its weaknesses by integrating it with another complementary strategy. However, not all combinations are complementary. Some lead to incoherence and inconsistency, and a number of hybrids adopted by sample agencies in the aforementioned study fall into precisely this category.

For example, to what extent can a Criteria and a Risk-Based Strategy can be successfully integrated? The answer is: it all depends. If risk trumps other criteria to the extent of any inconsistency between them, then those criteria are rendered meaningless by the introduction of risk. This seems unlikely to have been the intent of policy makers. If, on the other hand, risk is simply one more factor to be taken into account (with no indication as to how conflict between different factors will be resolved) then the indeterminacy of the criteria approach is not addressed and the role of risk may be a modest one, perhaps at most tipping the balance in cases that otherwise are finely weighed between different factors.

Another option is to combine risk-based with Responsive Regulation. It is understandable that regulators should be tempted to try and integrate these two strategies, given that they have been so influential both in theory and in shaping the behaviour of regulatory agencies. Nevertheless, combining them can give rise to serious problems. A risk-based strategy implies that the higher the risk to the environment, the tougher the enforcement action that should be taken, with past

experience of the individual operator being taken into account as one indicator of future risk. In contrast, under Responsive Regulation the regulator should approach the regulated entity assuming virtue and certainly without an evaluation of risk shaping its decision as to the appropriate form of intervention. Its normative basis is also quite different from that of risk-based regulation. Not least, Responsive Regulation appeals to the better nature of the regulatee and appears (and is) just, in a way that risk-based regulation, based as it is on utilitarian assumptions, is not. However, if these two strategies are used sequentially (resource allocation being determined on the basis of risk, responsive regulation as an intervention strategy) any such inconsistency is avoided.

Hybrids can only provide regulatory excellence where their structure ensures the complementarity of their different components and the coherence of the overall design.

Encouraging Regulatees to Go Beyond Compliance

Strategies to encourage, facilitate and reward compliance may only resonate with a relatively modest number of large, reputation sensitive corporations and in particular circumstances where they can identify 'win-win' opportunities. Nevertheless, should an excellent regulator aspire to nudge good companies (further) beyond compliance? Or is it a misuse of scarce regulatory resources to focus on making the top ten per cent even better rather than concentrating on the most serious problems or on under performers? Certainly some of the Clinton-Gore Reinventing Environmental Regulation initiatives, in retrospect, appear to have made only marginal differences to environmental outcomes and may not have justified the resources devoted to them.

Gunningham, Kagan and Thornton have suggested that the business risks that going beyond compliance may circumvent and the opportunities that it provides can best be thought about in terms of a socially constructed 'licence to operate'. This licence includes economic and social demands as well as the demands of government regulators: what they termed the economic, social and regulatory licences respectively. What a company decides to do in terms of going beyond compliance, it was suggested, can be explained largely by how it interprets and responds to the various licence terms. For example large, reputation sensitive companies which are regularly scrutinized by environmental groups and local communities will be particularly driven to go beyond compliance by the conditions of their 'social licence'. Other firms or industries which are not subjected to such external pressures (including most small and medium sized business) are far less likely to do so. Importantly, the various licence terms are interconnected. For example, corporations fear that not meeting the requirements of the 'social licence' will ultimately result in increased regulation or greater economic costs to the company. One consequence is that the interaction of the different types of licence often exceeds the effect of each type of licence in isolation.

This analysis has important normative implications, because understanding the connections between the different strands of the licence to operate enables regulators to understand more clearly how various licence terms might be invoked to better shape compliance and enforcement. They might for example, decide to 'name and

shame' on their website, by providing details of repeat offenders and their offenses, using this in tandem with more conventional enforcement strategies. They might equally, consistent with Responsible Regulation's supports based pyramid, seek to provide reputational rewards for 'good apples' who have improved and particularly those who have gone 'beyond compliance'. They may in short, use of the regulatory licence to expand the social licence through requirements to disclose comparative information.

How should the regulator interact with regulated entities and with a wide range of other interested groups and members of the public?

Excellent regulators recognise that they must use their scarce resources wisely and well and that this involves, amongst other things, harnessing the capacities of third parties to act as surrogate regulators and engaging in what Responsive Regulation would refer to as networked escalation.

A substantial body of empirical research reveals that numerous actors influence the behaviour of regulated groups in a variety of complex and subtle ways, and that mechanisms of informal social control often prove more important than formal ones. In the case of the environment, there is a case for focussing attention on the influence of: international standards organisations; trading partners and the supply chain; commercial institutions and financial markets; peer pressure and self-regulation through industry associations; internal environmental management systems and civil society in a myriad of different forms In practical terms, this last usually means NGOs and local community groups.

Much will depend on the context. In the case of pesticide use by vegetable growers, supply chain and community pressure can play important roles, in the case of motor vehicle smash repairs, the insurance industry's role could be pivotal, while in the case of ozone protection, industry self-management may be the critical instrument. Arguably, the most powerful forms of 'civil regulation' are those in which environmental NGOs or communities have the capacity to threaten the social licence and reputation capital of large corporations.

However, the participation of third parties, particularly commercial third parties, in the regulatory process is unlikely to arise spontaneously, except in a very limited range of circumstances where public and private interests substantially coincide.

An excellent regulator therefore, facilitates, catalyses and commandeers the participation of second and third parties to the cause of environmental improvement.

Adaptive learning

Much of our knowledge about compliance and enforcement strategies and in particular about what works and when, is tentative, contingent and uncertain. This suggests that excellent regulators need to engage in adaptive learning, and treat policies as experiments from which they can learn and which in turn can help shape future strategy. From this perspective, following it is important to ask: "how may mechanisms that promote policy-learning …be strengthened? To what extent do policy-making institutions provide mechanisms for learning from experience and

altering behavior based on that experience'.. This might imply, for example, monitoring, ex post evaluation and revision mechanisms and, in Fiorino's terms, "building reliable feedback mechanisms into policy-making, strengthening learning networks, creating conditions that would lead to more trust and more productive dialogue and building enough flexibility into the policy system so that it is possible to respond to lessons drawn from one's on experience or that of others".

In particular, adaptive learning is heavily dependent on the depth and accuracy of an agency's statistical database and other information sources. Only with adequate data collection and interpretation, can one know how effective or otherwise a particular regulatory strategy has been. There will be a need to establish databases which provide more accurate profiles of individual firms, hazards and industries. Environmental Information Systems have the potential to play a key role here.