

ENVIRONMENTAL ENFORCEMENT AND COMPLIANCE AND ITS ROLE IN ENHANCING COMPETITIVENESS IN DEVELOPING COUNTRIES

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2 PERCEPTIONS OF ENVIRONMENT AND COMPETITIVENESS

Historically, in developing regions such as Latin America, many in the private sector (as well as in government) have believed that improving environmental performance has only negative effects on the countries' ability to improve competitiveness. The traditional view argues that: increased costs to firms to upgrade technology and treat externalities hurt firm level cost-competitiveness in the international marketplace, stringent national environmental standards encourage companies to invest in countries with less stringent standards, the costs to governments of enforcing environmental legislation could be better used elsewhere, and, improved environmental performance is a "luxury" for wealthier countries that poor countries cannot afford.

While there is a certain logic to the arguments, and in certain cases all can be true, the experience of firms and countries over the past decade has led to deeper understanding of how environmental performance relates to the more traditional economic policy goals of nations — such as furthering trade relationships and improving firm competitiveness. This new experience has shown that the issues are much more complex than we had imagined, and that the traditional view is, at a minimum, overly simplistic, and at the limit largely incorrect in the context of most developing countries.

We now know that there are strong positive relationships between good environmental performance and increased country and firm competitiveness. These newly understood relations have important implications for integrating environmental policy (and its effective implementation and enforcement) across many aspects of national policymaking and programs. The following three sections of the paper attempt to articulate the arguments for the positive relationships. The two following sections examine in more detail the potential role of E&C [enforcement and compliance] strategies and programs and considerations for developing country policy-makers.

3 FIRM LEVEL COMPETITIVENESS

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At the firm level, there are clear links between higher levels of environmental performance and improved competitiveness. Many are well known and well-documented, others are anecdotal or simply believed by business people and researchers to be relevant, pending more empirical research.

First, the cost differential between environmentally "sound" and environmentally "unsound" products is a relatively small component of the cost structure for most companies. In the United States, arguably the country with the most expensive environmental regulatory system with which to comply, the average costs of compliance with all environmental regulation has been estimated at less than one percent of total costs....

Second, producing with less waste is usually more profitable. Waste products are, by definition, raw materials that enter into a process which are not used in the final product. Eliminating the waste streams by incorporating them into the product, reusing them or

recycling them are always more profitable alternatives to treating the product for disposal (and usually more profitable than throwing the product away untreated)....

3.1 New Understanding of Opportunities

The other manner in which the traditional view of environmental costs is being challenged is through increasing opportunities for realizing market value from improved environmental performance. Globalization, increased connectivity, and changes in stakeholder expectations of firm's behavior are creating opportunities for firms to increase value for consumers, business customers and investors. (Pratt 2000, SustainAbility 2002).

3.1.1 Relating to Firm Business Opportunities

3.1.1.1 Efficiency

As discussed above, there are very good opportunities for firms to invest in making their production processes more efficient, and their products more valuable per unit of energy and raw materials usage. Investments in energy and material efficiency can be highly profitable and can increase long-term competitiveness for many firms. In developing countries, particularly those of Latin America, there are outstanding opportunities for investment. High costs of capital (due to macroeconomic factors), a historic scarcity of investment capital and a tradition of relatively closed economies (limiting much cost competition) have led to underinvestment in new technology and allowed processes to be considerably less efficient than global competitors. As these economies open there will be increasing need to improve efficiency and ample opportunities to move to cleaner, more-efficient production technology. Fortunately, greater macroeconomic stability should allow investment costs to be more manageable permitting increased investment.

E&C programs can play an important role in improving efficiency in a number of circumstances. Where regulatory systems push firms toward higher levels of performance (such as more stringent effluent standards), E&C programs can be structured to allow companies to pursue a variety of options for achieving the regulatory goals. For example, gains in process efficiency are almost always competitiveness enhancing while investments in pollution control technology rarely are. Another important area is in advancing environmental goals in sectors that are highly competitive locally. There are many cases where many actors in a given industry all want to pursue more environmentally-sound production paths, but no single actor is willing to go first for fear of the others gaining an advantage by not following the same path.¹

3.1.1.2 Adapting to trends toward more environmentally sound products

Trends in consumer markets and "business to business" markets are rewarding firms with environmentally superior products and services and increasingly rejecting products that are lacking in certain attributes. For example, in markets for foodstuffs, organic and other "sustainable" agricultural products are growing rapidly as market segments. Organic sales alone represent over \$20 billion of sales in each the US and Europe, and now account for about 2% of the total food market. While still relatively small, historic growth rates of around 20% per year (versus less than 2% for conventional foodstuffs) make it a very interesting market. Developing countries have outstanding potential to take advantage of these opportunities (due to lower labor costs, and frequently favorable climatic conditions).

In business to business relations, entire industries are moving to ensure that their products incorporate environmental aspects. The ISO14001 environmental management systems standard has proven to be the preferred vehicle for "B to B" environmental relationships. ISO14001 is now a "de facto" requirement for most of the value chains supplying the electronics and automobile industries and will likely take on similar importance in other industries.

Trends in forestry products (for sustainably managed timber sources) and fisheries (for

more responsible capturing practices) and a number of other industries are indicative of the strength of these trends.

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3.1.1.3 Innovation

There is strong evidence from a number of industries of increased product and process innovation emerging as a result of stringent environmental standards....

There is little doubt that the success of industries such as the air emissions reduction industry that emerged in California was a direct result of a “home-grown” response to that state’s stringent air emissions standards. Similarly, it is clear that Sweden’s domination of the cellulose pulp processing industry is due to the extremely efficient production machinery developed in Sweden to meet that country’s demanding air, water and waste standards.

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The relevant point for E&C programs in this area is that compliance, per se, does not stifle innovation. However, it is clear that regulatory regimes can either stifle [or] encourage innovation depending on a number of characteristics discussed later in the paper.

3.1.2 Relating to Stakeholder Issues

Perhaps the greatest change in the environment-competitiveness relationship has been the increasing number of different stakeholders taking an interest in firm-level performance. Increased awareness of the negative consequences of poor environmental performance, increased speed of communications, and increased empowerment of communities and civil society in general have led to greater interest and involvement, and have increased the risks of weak environmental performance. Much of the risk is tied to the effectiveness of a country’s regulatory system and its E&C mechanisms.

3.1.2.1 Social license to operate/Avoidance of direct action

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E&C play a critical role in this sphere. Fair and conscientious application of environmental standards strengthens the legitimacy of a regulatory regime. If rules are unclear or not clearly understood, E&C can “save the day” by stepping in to clarify the conflict. Conversely, where rules are clear failure of an E&C effort to lead to a just outcome (or a perceived just outcome) can undermine confidence and negate the effectiveness of the regulatory system.

3.1.2.2 Regulatory risk

Without clear and clearly enforced standards (particularly regarding emissions parameters), firms face a great deal of risk. Citizen complaints or arbitrary or capricious action by officials can lead to sanctions (in Latin America temporary closure is the most common sanction). A more sophisticated and stable system increases predictability and transparency and greatly reduces the risk of regulatory action. E&C is the interface between the rules themselves and the firms that are obliged to implement them. If this function is fulfilled in a consistent and transparent way, firms benefit from lower costs (they understand what is expected of them and focus on that) and lower risk (of misunderstandings or arbitrary actions).

3.1.2.3 Risk for financiers

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E&C professionals should consider strategies for working with the financial sector to help finance practitioners understand the obligations their clients face and determine strategies for ensuring that risks to the company (and by extension their financiers) are managed effectively.

3.1.3 Evidence

The most compelling support for positive links between environmental performance and firm level competitiveness come from changes evident in the financial markets. Today, roughly one seventh of all globally invested funds include specific exclusions (called “filters” or “screens”) for a number of sectors seen as objectionable or “unethical” (such as arms, nuclear energy, tobacco, gambling). This is in response to demand from individual and institutional investors (such as pension funds) who prefer not to have their savings and investments used to finance those industries. From 1996 to 1999 total assets in “screened” funds grew 80% during the past three years, compared to just over 40% for the rest of the market. (Social Investment Forum 1999)

A number of financial organizations are testing the theory that sound environmental performers are also superior financial performers by building mutual funds that include only companies that pass relatively high “filters” for environmental and social performance. Because these funds are new and relatively small (total market capitalization of all the funds is only US\$1 to US\$2 billion), it is too early to draw conclusions, but results thus far are encouraging. A 1998 comprehensive review of these funds showed that they were performing well against established benchmark indexes. (Ganzi 1998) Most of the funds also showed a much faster rebound from the stock market crash of 2000 and 2001 (author’s review). A detailed study by ABN/AMRO, a leading Dutch financial institution concluded that while the case cannot yet be made for superior performance of sustainability-based investment funds, performance is at a minimum as good for ethically oriented portfolios including environmental ones. (ABN/AMRO 2001)

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As noted previously, most of the data to support links between superior environmental performance and improved competitiveness are based on industry observations and case studies. However, empirical research on environmental performance and capital markets shows that the most successful and valuable multinational firms are those that adhere to the highest environmental standards.(Dowell and Hart 1998) The authors researched the relationship between firm value creation and the stringency of internal company environmental standards for over 500 publicly traded, U.S.-based multinationals in non service sectors. The study found that multinationals that have internal worldwide standards higher than any individual countries’ standards are those with the highest levels of value creation. In contrast, firms that adhere to the lowest standards in the countries in which they operate are those with the lowest value.

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4 TRADE AND ENVIRONMENT

Nearly every developing country in the world is pursuing economic strategies that feature export-led economic growth. Environmental performance is critical in at least two dimensions of these economic strategies.

4.1 Import Requirements and restrictions

Most industrialized countries already have in place stringent rules regarding the environmental attributes of products entering their borders (limitations on chemical residues, types of plastics used, even packaging

materials). In addition, international trade rules allow countries to restrict imports of products that are produced using certain processes that are deemed harmful (such as those that harm endangered species). To realize the potential from export-led growth, countries (and companies operating in them) must ensure that their products meet both the standards required by the destination market as well as those conditions established by exporting country. In addition, they must pay increasing attention to the manner in which export products are harvested and produced to ensure adherence to more stringent process-based requirements.

For the natural resource-based economies of most developing countries, this issue underlines the importance of regulatory programs and sound E&C initiatives in areas such as agricultural chemicals and pesticides, marine and coastal resources (particularly marine mammals, turtles, wetlands and mangroves), and endangered species protection. A limited number of “problems” identified in industrialized countries can ruin an entire industry, even if the failures are from only one firm. For example, Guatemala’s berry industry has been destroyed twice in the past ten years due to an embargo on exports to the United States (imposed by the U.S. due to Guatemala’s failure to adequately manage chemical and biological risks affecting the berries’ quality). In both cases, more serious attention to chemical use and biological contamination would have eliminated the problem. A small number of containers of Chilean grapes found to have unacceptably high levels of pesticide for the U.S. market led to an embargo of all Chilean grapes for a lengthy period.

Other cases can be found, and trade rules at an international level are moving toward allowing countries greater latitude to restrict imports based on undesirable environmental criteria. (IISD 2002) Tropical timber is an interesting example. Due to an agreement of the International Tropical Timber Organization, international trade rules now allow any WTO member country to prohibit the importation of wood or wood products that are not certified as coming from sustainable sources. While it is not yet in any country’s interest to exercise this right, WTO rules allow the restriction to be implemented at any time. The key for developing countries to protect their timber exports is to put in place programs (with appropriate compliance assurance mechanisms) that promote sustainable forest management and reduce the likelihood of any of their exports being rejected for lack of certification.

4.2 Trade Policy and Strategy

Most developing countries are pursuing closer trading relationships with the U.S. and Europe, primarily in the form of free trade agreements. In the case of the United States in particular it is clear that environmental issues are a critical component of reaching the agreement. Concerns in the United States regarding trading partners’ environmental and labor performance are considered to be the most serious political obstacles to furthering trade agreements.

The North American Free Trade Agreement (NAFTA, between the U.S., Canada and Mexico) included an entire parallel agreement obliging the countries to undertake a wide variety of activities to strengthen environmental performance, resource management, and cooperation. This agreement is largely responsible for a wholesale change in Mexico’s environmental laws, regulations and approach toward more sound environmental management. Both the obligations of the agreement and a sophisticated understanding of the competitive implications of environmental performance for Mexican exporters have led to dramatic improvements in many areas.

Responsible environmental standards and the ability and will to enforce them are part of the “price of admission” to closer trading ties with the U.S. It is clear in all of the post-NAFTA trade agreement processes (with Chile, Singapore, Jordan and the Central American nations) that the U.S. expects all of its trading partners to have in place laws, rules, administrative structure and E&C programs necessary to ensure responsible environmental performance, and that it will sanction its trading partners if their enforcement and compliance systems do not ensure that the rules are followed.

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E&C’s role is critical. The United States in particular looks frequently to E&C indicators to assess whether or not countries are taking appropriate action to ensure compliance with the environmental laws and regulations. For this reason, Latin American countries’ E&C programs will likely be in the “spotlight” of any potential disagreements or disputes.

5 BUSINESS CLIMATE

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Each year since 1992, the World Economic Forum has published annual assessments of countries' competitiveness including rankings. In 1997, the WEF began including a number of environmental variables in recognition of an emerging understanding of the relationship between environmental performance and the development path of countries.

Today, the WEF environmental determinants of business climate and the subsequent rankings comprise one of the 11 "chapters" of the analysis and rankings. The issues assessed, analyzed and ranked are:

- Stringency of air, water, waste disposal, chemical and overall environmental regulation,
- Speed of adoption and enacting of environmental rules
- Level of government priority to enacting international environmental regulations
- Flexibility offered by system and authorities to meet required obligations
- Consistency and fairness of environmental enforcement
- Perceptions of effect of compliance on firm competitiveness
- Extent of public-private cooperation to reach environmental gains
- Prevalence of environmental management systems

The critical issue for policy-makers is that a very "mainstream" business policy organization is completely convinced of the positive linkages between environmental performance and a healthy competitive business climate. Countries seeking to improve their ranking (which is seen internationally as an important barometer of economic development potential) will need to take these criteria into account when working to strengthen their business climate.

A 2001 analysis of the results of the indicators reached an important conclusion:

"..the quality of a nation's environmental regulatory regime is strongly and positively correlated with its competitiveness.." (page 95) and continues:

"...The analysis provides considerable empirical evidence that crosscountry differences in environmental performance are associated with the quality of the environmental regime in place. We find that the rigor and structure of the environmental regulations have particular impact, as does emphasis on enforcement."

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For developing countries, this provides a very strong competitiveness and business-climate case for advancing more stringent regulatory structures, and for developing much greater capacity to ensure compliance with established laws and regulations.

It is important to note that E&C plays a direct or indirect role in nearly every one of the key environmental business climate factors. Some are direct – such as perceived consistency and fairness, and the level of public and private cooperation. Others are indirect – for example, the stringency of regimes (in particular in developing countries stringency is very much related to actions taken by E&C programs), flexibility, and perceived benefits on competitiveness.

6 THE ROLE OF E&C IN PROMOTING COMPETITIVENESS

There is strong evidence that improved environmental performance is positively correlated with increased competitiveness. Further, we understand from experience in both rich countries and developing countries that environmental performance in the economy in general is largely a function of stringency of the environmental regulatory regime and of the seriousness of E&C efforts and programs. At the firm level, companies are frequently rewarded in the market place by improved environmental performance.

Experience in developing countries has shown that without effective E&C, progress

toward national environmental goals will be limited. There is evidence that effective environmental E&C systems (based on fundamentally sound regulatory structures) can play an important role in encouraging firms to improve environmental performance, which can strengthen broader competitiveness-related goals at the national level.

...One of the challenges in using E&C as a tool to strengthen competitiveness is that E&C, by virtue of its role in an overall environmental regime, is a function of the policies and rules set out by the country. It is hard for E&C efforts alone to compensate for deficiencies in the laws and regulations. If the overall regulatory regime is misguided in this regard, then E&C will likely have little or no positive competitive impact.

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Compliance and enforcement can also have neutral or even negative effects on competitiveness. Enforcement of rules that do not assist local companies in realizing environmental benefits will not improve competitiveness (though it may not harm it either). In some cases, countries must enforce rules to achieve social and environmental goals that are not may harm the competitiveness of companies (footnote, refer to section on goals of national regimes). Also, uneven, unpredictable or inconsistent compliance and enforcement sends mixed signals, allow firms to gain short term advantages over local competitors through non-compliance.

7 CONSIDERATIONS FOR DEVELOPING COUNTRIES

As in many areas of environmental policy, implementation in developing countries implies a great number of challenges. Among the most relevant ones to be considered include:

- Relatively immature regulatory systems
- Limited national budgets leading to weak (underfunded, understaffed) institutions.
- Lack of understanding of how environmental performance relates to competitiveness
- Predominance of traditional views among private sector and government officials emphasizing “costs” of environmental performance
- Unique natural resource bases that present different challenges and reduce the possibility of “cut and paste” strategies from the U.S. and E.U.

A consensus “laundry list” of attributes of an overall environmental regime capable of enhancing competitiveness would include:

- Clear and stable rules based on a sound legislative mandate
- Clear and clearly delineated obligations for regulated community and other societal actors
- Clear performance parameters for regulated community (numeric, unequivocal)
- Mechanisms that drive and support the development of related industries and infrastructure (this allows for cost-effective waste management, a deep market for production equipment and control technologies, and other items),
- Rules designed to force companies to internalize the costs of low levels of environmental performance and which reward companies that reduce their externalities on the society
- Long-term goals that avoid technological “lock-in” (permitting technological revolution, rather than just evolution to meet increasingly stringent standards)
- That allow the regulated community certain flexibility in choice of solution to reach regulatory goals.
- Emphasis on solutions that reduce waste (materials, water and energy) rather than seek to treat it.
- Goals that push firms toward global product and process standards and the

expectations of international trading partners.

- Structures that permit cost-effective E&C (burdens of proof, standards)
- Clear and simple legal procedures for the regulated community which reduce paperwork and time and effort interacting with authorities.

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One particular advantage in most developing countries at this time is that their regulatory systems are still relatively immature. The immature systems may permit greater latitude to improve them through regulation or decree, and more specifically they may allow E&C professionals to “simulate” more ideal attributes through their policies, strategies and programs.

The most pressing question for E&C planners in a given country is to what extent the current systems and rules grant the degrees of freedom necessary to engage in competitiveness-enhancing activities? Only detailed country-by-country analysis can answer this question and develop recommendations for expanding the space in which E&C programs can engage in these issues.

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- ¹ A well known case is the Costa Rican coffee processing sector. A voluntary agreement among all firms and the Environment Ministry permitted all companies to simultaneously pursue very large reductions in biological oxygen demand without risk.

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