
ENVIRONMENTAL ENFORCEMENT IN LATIN AMERICA AND THE CARIBBEAN

NOLET, GIL

Inter-American Development Bank, Environment Division, 1300 New York Avenue, NW, Washington, D.C. 20577

SUMMARY

This paper provides an overview of the status of environmental compliance and enforcement in Latin America and the Caribbean. It identifies why it has proven to be a challenge and provides examples of enforcement and alternative approaches. The role of the Courts is described as are steps needed to make progress.

1 INTRODUCTION

The need for effective environmental enforcement is increasingly recognized in Latin America and the Caribbean. The Declaration of Santa Cruz de la Sierra (December 1996) states that the countries will “*develop national mechanisms for effective enforcement of applicable international and national laws and provisions*”.

The political acknowledgment of the importance of environmental enforcement is likely to stem from the recognition that the degree to which environmental quality can be improved by public policy depends not only on the wisdom inherent in policy design, but also on the effectiveness of policy enforcement. Policies which initially seem to offer promise may, in the glare of hindsight, prove unsuitable if enforcement is difficult or lax. Implementing a successful sustainable development strategy requires that careful attention be paid to the environmental consequences of economic activities. Ignoring or treating these environmental impacts as inconsequential can undermine human and ecosystem health as well as the resource base on which all economic development ultimately depends (Tietenberg, 1996).

Environmental enforcement has been broadly defined as “the range of actions governments and others may take to encourage and compel compliance with environmental requirements” (Wasserman, 1994). Environmental enforcement is obviously important to protect environmental quality and public health. When enforcement actions are being planned and carried out effectively, environmental enforcement also contributes to building and strengthening the credibility of environmental requirements, ensuring fairness, and reducing costs and liability (Wasserman, 1994). In general, a lack of official response to violations could harm the credibility of environmental laws and governmental agencies. This lack of credibility in turn may lead to serious costs for business and undermine efforts to attract investors. Moreover, a system under which there are no coherent priority setting and no systematic policy to target polluters will result in efficiently high costs of compliance on polluters where often pollution control is pursued where resistance is least rather than where costs are least or benefits are highest (World Bank 1996).

However, how best to focus environmental enforcement activities in order to achieve cost-efficient environmental compliance (such that the excess of benefits over costs (or net benefits) are maximized) is still subject to much debate. Much depends on the adequacy of the environmental laws and regulations themselves, but also on the costs related to

enforcement activities, such as monitoring, and the availability of instruments and capacity of institutions, not in the least the judiciary. This report will describe some of the recent developments in Latin America and the Caribbean countries in this respect. It will also review if enforcement can contribute to revenue generation, and highlight some of the changes that are taking place in the area of enforcement through increased private enforcement and voluntary compliance. Whereas private enforcement may bring non-traditional actors in the enforcement scene, such as non-governmental organizations and private companies, programs of voluntary compliance are focused on the potential polluters ("the regulated community") themselves to make them more responsible for and responsive to environmental laws and regulations.

2 ENFORCEMENT: WHY IS IT DIFFICULT?

The economics literature on enforcement has focused on a number of topics, including the role of enforcement considerations in policy instrument choice (Harford 1978; Viscusi and Zeckhauser 1979; Lee 1984; Martin 1984), the effectiveness of current enforcement techniques (Russell, Harrington and Vaughan 1986; Harrington 1988; Russell 1990), and suggestions for improving the enforcement process (Russell, Harrington and Vaughan 1986; Harrington 1988; Russell 1990). One theme that emerges from these works is that a considerable amount of noncompliance is occurring everywhere. Furthermore, limited public enforcement budgets and judicial limits on public enforcement powers (Russell, Harrington and Vaughan. 1986; Harrington 1988; Russell 1990) suggest that traditional enforcement agencies are not likely to mount a completely adequate response to the environmental degradation resulting from noncompliance.

The countries of Latin America and the Caribbean fit this general image. Studies published by the IDB on the institutional and legal aspects of the environment in its borrowing countries, concluded that lack of compliance with environmental legislation is due to shortages of human, material and financial resources for appropriate environmental management (IDB, 1991; IDB, 1996). An IDB study on Southern-American countries concluded that enforcement is the greatest constraint faced by all the six countries of the study, mainly due to the fact that enforcement problems have traditionally received little attention by legislators, a negative trend that persists today (IDB, 1996).

The common problems related to monitoring, compliance and enforcement are insufficient social value attached by the public, understaffing of the institutions responsible for enforcing, shortcomings in judicial enforcement with only a small number of judges and attorneys qualified in the field of environmental law, and a lack of program funding. Setting up reliable databases, control and monitoring is extremely expensive. Moreover, the cost of maintaining a database can be much larger than the cost of starting one. Some countries have put institutions in place but have not succeeded yet in giving them the power to operate effectively. Other countries still lack an institutional infrastructure (Tietenberg, 1996).

An important factor is related to inadequate monitoring and control. The above-mentioned IDB study on the Southern Cone concluded that in Argentina, for example, most of the examined environmental agencies are ill-equipped, limited in their number of inspectors and other supporting staff, poorly budgeted and politically weak (IDB, 1996). It was noted, however, that in some cases environmental monitoring was more advanced at the provincial level. For example, Mendoza has adopted a very sophisticated environmental monitoring system in which data becomes part of a policy making process (IDB, 1996).

The case of Mendoza and CETESBE in San Paulo State, Brazil, however, may very well be exceptions to the general rule that in Latin America the lower levels of government lack sufficient resources to adequately deal with their new responsibilities. Enforcement of environmental regulations is increasingly being transferred to the responsibility of departmental and local agencies without a transfer of the necessary resources (World Bank, 1997). In Bolivia, for example, the new decentralization law transfers the enforcement responsibilities, as well as the Environmental Impact Assessment system, to local governments but most of them still lack the appropriate institutional organization and human resources needed to carry out their functions (IDB, 1996).

But noncompliance with regulations is also caused by an inefficiency of the regulations themselves. Existing regulatory schemes are not always cost-effective compared to other possible approaches. Regulations often set environmental requirements (ambient standards, performance standards and/or technology standards), which need to be monitored and enforced¹. Moreover, the standards themselves should be set in accordance with local circumstances and requirements. Copying international standards may be counterproductive because it may be impossible to enforce them (Tietenberg, 1996). In Venezuela, for example, the Ministry of Environment and Renewable Natural Resources (MARNR) acknowledged a few years ago that the country's Environmental Penal Law was ineffective because many technical standards "came out in a rush and many of them are confusing" (EWLA, 1995).

Yet, there is some evidence that monitoring and enforcement is being given increasing consideration within Latin America and the Caribbean. In February 1994, the Colombian government launched a new pollution control and monitoring program that, for the first time, will allow the government to supervise the generation, treatment, and management of industrial liquid waste. The system will be supported by a computerized data base to store information about the discharges, permits, and licenses of industrial sources (Tietenberg, 1996). The NAFTA emphasis on enforcement has put great pressure on the Mexican government to further increase enforcement (Gresham and Bloomfield, 1995). The NAFTA provisions (see box) have resulted in an increased awareness and emergence of private enforcement in Mexico, and probably also in other countries of the region, certainly if they were to join NAFTA.

The Government of Mexico has taken several steps to improve its monitoring and enforcement record, including passage of the General Ecology Law (1988) and the establishment (1992) of the Office of the Attorney General for Protection of the Environment (PROFEPA), currently under the Secretariat of Environment, Natural Resources and Fisheries (SEMARNAP). Mexico has adopted an Environmental Program for 1995-2000 to

NAFTA and Environmental Enforcement

NAFTA, in particular the Supplemental Agreement on Environmental Cooperation, emphasizes the importance of both government enforcement actions as well as private enforcement. In Article 5, the NAFTA Supplemental Agreement on Environmental Cooperation lists several actions governments should undertake to effectively enforce its environmental laws and regulations. Such actions include appointing and training inspectors, monitoring compliance, seeking assurances of voluntary compliance, publicly releasing non-compliance information, promoting environmental audits, requiring record keeping and reporting, providing or encouraging mediation and arbitration services and using licenses, permits or authorizations. It also states that each Party shall ensure that judicial, quasi-judicial or administrative enforcement proceedings are available to sanction or remedy violations of its environmental laws and regulations (Article 5). Such sanctions and remedies shall take into consideration the nature and gravity of the violation, any economic benefit derived from the violation, and the economic condition of the violator. Furthermore, it shall include compliance agreements, fines, imprisonment, injunctions, the closure of facilities, and the cost of containing or cleaning up pollution.

In addition to its provisions on public enforcement, the NAFTA Supplemental Agreement contains innovative provisions on private enforcement. Article 6 of the NAFTA Supplemental Agreement contains the obligation of each Party (U.S., Canada and Mexico) to enable interested persons to participate in enforcement activities. It states that each Party shall ensure that interested persons have access to enforcement proceedings, and that interested persons may:

- sue another person for damages;
- seek sanctions or remedies such as monetary penalties, emergency closures or orders to mitigate the consequences of violations of environmental laws and regulations;
- request the competent authorities to take appropriate action to enforce the environmental laws and regulations in order to protect the environment or to avoid environmental harm;
- seek injunctions where a person suffers, or may suffer, loss, damages or injury as a result of a violation of environmental laws and regulations or from tortious conduct.

improve compliance with environmental legislation. The program also includes a set of innovative preventive measures, such as voluntary environmental audits (see below), and the establishment of a web page to encourage compliance with environmental regulations. These actions have apparently been reflected in an increase in the level of enforcement effort as reported in the Annual Report of the NAFTA Commission for Environmental Cooperation (CEC, 1997).

Unlike Mexico, in certain countries of the region the responsibility for environmental enforcement still belongs to the sectoral ministries. In Chile, for example, the most important enforcement agency is the Ministry of Health due to a large number of violations related to human health legislation (IDB, 1996). In other countries, the regulatory authorities, such as the forestry service, should initiate any administrative enforcement action without which the attorney general has no authority to act (Lawyers Committee for Human Rights, 1998).

3 ENFORCEMENT: A POSSIBLE FUNDING SOURCE?

It has been argued that an efficient and effective legal environmental system can become an important instrument for generating resources for environmental projects and preventing further environmental degradation (López, 1994). Effectively enforced legislation that establishes large financial penalties for violators and requires full financial compensation for past environmental damages may have a potential for raising significant resources that could be used to finance new sustainability programs. However, as the US experience with Superfund has shown, there are serious constraints to a system under which a government agency tries to raise resources for its own use through the court system. The EPA has spent seven dollars in overhead for every dollar spent on clean up (López, 1994).

Are fines for environmental crimes really a potential source of revenues for environmental projects? In Brazil, it is estimated that the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA) collected between US \$10 million and US \$12 million per year during 1996 and 1997 from environmental fines (IDB, 1998). Under the new Brazilian Law on Environmental Crimes, which came into force on March 30, 1998, a portion of the fines collected for environmental infractions should now be transferred to the National Environmental Fund (FNMA). When the amount of collected fines continues to be at the 1996-1997 level, this earmarking of environmental fines can clearly contribute to the long-term financial sustainability of the FNMA and as such help to finance environmental improvements. FNMA is the first and oldest environmental fund established in Brazil and has financed projects primarily in environmental control, protected areas and environmental education. Over 70 percent of the projects are executed by NGOs, community groups and small municipalities. It should be noted, however, that President Cardoso has suspended several provisions of the new law.

Yet, one should probably not be overly optimistic about the revenue generation potential of environmental fines. In Colombia's "Financial Strategy for Sustaining Environmental Investment for the period 1998-2007", it is stated that revenues from environmental fines (as levied under Art 85 of the Environmental Law; Ley No. 99) have not been significant so far although they may have the potential to increase when the implementation of the law becomes more developed. Under the Ley No. 99, the environmental authorities can impose daily fines up to 300 days' minimum wage (in Mexico, sanctions up to 20,000 times the minimum wage are allowed; IER, 1994, p. 817). However, even in the most optimistic scenario, the Financial Strategy estimates that the revenues from environmental fines would be limited to US \$6.4 million over the ten year period covered by the strategy, probably due to the fact that it is reasonable to expect that a successful program would result in increased compliance and thus fewer fines (although it is suggested to partly compensate this by making the fine amounts inversely related to the level of overall compliance).

The Financial Strategy, however, shows that within a context of developing a broader spectrum of financial instruments, environmental fines can play a significant role. In many countries of Latin America and the Caribbean, however, there is reluctance to allow earmarking of environmental fines for environmental investments. In general, penalties can either be earmarked for environmental improvement or put into the general treasury. Traditional economic theory suggests a preference for putting penalties in the general treasury. Earmarking them for a specific purpose such as environmental improvement is seen as unnecessarily restricting the possibilities for spending the money in the most efficient way. If environmental improvement is the most efficient way of spending the money, then general treasury money can be spent for that purpose. But if other projects were to offer much higher rates of return, earmarked revenues (because they are designated for a particular purpose) would miss those opportunities (Tietenberg, 1996). Earmarking may not only result in suboptimal allocation of resources but also provide incentives to environmental authorities to pursue fines even if not in the social interest of the country. Therefore, a system that allows earmarking of environmental fines should address these issues in a satisfactory manner.

Four Main Ways of Private Enforcement

Under the typical regime, private groups can use private enforcement actions to pursue better environmental quality in four main ways:

- (1) by suing polluters to recover monetary damages inflicted on them by the pollution (for the purpose of this paper called “civil liability actions”);
- (2) by lodging a complaint by the enforcer with a designated public authority (called “complaint actions”);
- (3) by bringing a legal action against a public authority entrusted with responsibility for implementing the laws to force compliance with legislative or constitutional requirements (called “oversight actions”);
- (4) by bringing actions against polluters for the purpose of bringing them into compliance with the law (called “direct citizen suits”);

This latter two categories of enforcement action may include seeking an injunction, i.e. requiring a party to refrain from doing or continuing to do a particular act or activity. Injunctive remedies are preventive measures which guard against future injuries rather than affording a remedy for past injuries.

4 ALTERNATIVE APPROACHES TO ENFORCEMENT: PRIVATE ENFORCEMENT

In order to circumvent some of the constraints faced by public enforcement agencies, in particular resource and staff constraints, private enforcement could be an

alternative approach. Private enforcement can complement, or even substitute for, public enforcement. Although many efforts at privatization ultimately turn a public responsibility (such as fire protection) completely over to the private sector, enforcement does not lend itself to that strategy. In general, even in countries with strong private enforcement regimes, public enforcers retain a prominent role. When authorizing private enforcement, most legislatures have been cautious not to afford the private enforcers too much power. Nevertheless, private enforcement is increasingly becoming a widely used method of enforcing environmental laws and regulations (Tietenberg, 1996). Much like public enforcement, it can constitute a source of finance through earmarking penalties for environmental purposes, and, more indirectly, through making noncompliance more expensive for polluters (Pearce, 1997).

Oversight Actions in Chile

The “Corporación del Cobre de Chile Case” offers an example of a successful oversight action against a state-owned company. The Citizens Committee of Chañaral (“Comité Ciudadano por la Defensa del Medio Ambiente y el Desarrollo de Chañaral”) claimed that the government authority which owned the Mining Company “El Salvador”, the largest company in Chile, was violating its constitutional right on a healthy environment because of an ongoing “arbitrary and illegal” discharge of pollutants by the mine’s metallurgic plant in the river Salado, causing severe contamination of the Bahía de Chañaral and the coast. The Chilean Constitution guarantees every person the right to live in an environment free of contamination and it is the obligation of the State to keep watch of any violation of this right, and citizens can bring a court action against an authority for violation of this right (called an “Article 20 Action”). In this case, the court, as confirmed in appeal by the Supreme Court, ruled that, although the company had an authorization, this did not justify the contamination of the waters and that the discharge was a violation of the Committee’s constitutional right. The court ordered the Mining Company to end its discharge in the Pacific Ocean.

Another Article 20 Action was directed against the Mayor of Futrono for the “arbitrary and illegal” installation of a rubbish dump without observing the minimal sanitation standards. This case is an example of well coordinated use of administrative and civil procedures. The claimant simultaneously filed a complaint with the Sanitation Service against the Mayor. The Service ruled in favor of the claimant and imposed an administrative fine and ordered the closure of the dump. Subsequently, the court that ruled on the Article 20 Action, took this administrative decision into account and ruled also in favor of the claimant, i.e. ordered the closure and clean-up of the site.

Private enforcement actions differ from more conventional liability actions in that in private enforcement, the initiator of the action is not primarily seeking compensation for pollution-related damages (except in cases of civil liability actions). Rather the private enforcer is seeking to bring a noncomplying polluter into compliance or to force a public official to carry out her legal responsibilities.

In Latin America and the Caribbean, the complaint is frequently triggered by a perceived violation of a procedural requirement or of a fundamental right to a clean environment which is not necessarily related to specific legal discharge standards. Under the complaint form of private enforcement the public authority may be designated as the recipient of any complaint with full powers to investigate and dispose of the complaint, as is the case in El Salvador (Navarrete Lopez, 1994). In the U.S. and European contexts the action is more likely to be exclusively focused on a violation of a specific discharge standard.

The right of citizens to participate directly in the enforcement of environmental laws and regulations varies from one country to another. Unlike the United States, most of the civil law countries of the region do not have citizen suit provisions in specific environmental laws. In most countries, citizen suits, if they exist, are generally derived from the constitution

Legal Traditions

To be effective private enforcement activities must conform to the legal traditions of the region. Those legal traditions vary considerably. In common law (the legal system in most of the English speaking Caribbean), the legal systems are based on law created through legal precedent, notwithstanding the existence of statutory law and rules. The common law is not the result of legislative enactment. Rather its authority is derived solely through judicial decisions (Environmental Law Handbook, GI INC, 1993). However, most common law countries, including the U.S., have legislated extensively with regard to the environmental area and a substantial part of the law is based on statutory provisions (including the citizen suit provisions in U.S. statutes), but with a strong common law influence. Legal precedent is very relevant in the English-speaking countries of the Caribbean. But in those countries citizen suits are not a common feature of the system.

The other LAC-countries follow the civil law system as derived from the Roman-Germanic tradition. In a civil law tradition, the legal system is based on an extensive system of laws and regulations. The courts apply the laws and regulations to specific cases presented to them and therefore play a less significant role in interpreting and making law. However, some complaint procedures resulting in a court decision provide the judiciary substantial authority and limit the discretionary powers of the executive branch.

or the civil codes. For instance, civil codes provide citizens with the general right to bring legal action against any person for the failure to comply with the law (not specifically environmental laws). In other countries, citizens' rights are limited to complaint actions.

In Mexico, citizens have the right to issue a complaint before the Environmental Attorney General's Office (PROFEPA) under the General Law on Ecological Equilibrium and Environmental Protection. El Salvador's National System of Environmental Complaints offers similar opportunities to its citizens (Navarrete Lopez, 1994).

More recently, Mexico published a Decree amending the law (13 December 1996) which includes a right to demand revisions of government decisions and legal suits for environmental crimes (CEC 1996). However, the provisions have not been used so far, almost two years after the decree entered into effect which may reflect a certain lack of awareness in society about available legal instruments (IER, 1998).

In Argentina, due to new clauses in the most recently amended National Constitution, legal standing has been expanded to people other than those directly affected in their property or personal health. Private parties interested in community goals of environmental quality are now able to file legal actions against other private parties or the government (IDB, 1996).

The most liberal regime seems to exist in Brazil, where every citizen can bring a claim before the courts, including for their environmental rights granted by Art 225 of the Constitution. Concerned citizens may also contest administrative decision that they consider not to be in accordance with the law. Two proceedings are particularly important: (i) Popular Action (Art 5, LXXIII of the Federal Constitution) under which every citizen has the right to

Corruption

In some countries corruption inhibits efforts to enforce environmental regulations. Low staff salaries and little external oversight of regulatory activities create an environment where bribing officials to look the other way may turn out to be cheaper than making the required investments to prevent environmental harm. Both the citizen suit and oversight roles for private enforcement make even more of a difference in the degree of compliance in a corrupt enforcement regime than it could in the absence of corruption. Allowing private enforcement oversight of public decisions provides a direct check over corruption, while allowing private enforcers to bring actions against private entities which are inflicting environmental harm provides a (sometimes quite powerful) indirect check.

Bribing officials is an effective strategy only when the officials have sufficient control over the enforcement process that they can grant the bribing firm immunity from enforcement actions. As long as enforcement is the exclusive domain of the public sector bribes are valuable because of the immunity public enforcers can bring. However, when private enforcers enter the scene, public enforcers can no longer assure immunity from an enforcement action. Bribing becomes a less certain, and hence less attractive, strategy.

On the other hand, careful consideration needs to be given to the design of a complaint procedure and any necessary protection of anonymity. In societies where police may take the law in their own hand, it can be counterproductive to require that complainants give their names and other personal information with their complaints, potentially exposing themselves to whoever gets access to that data. It has been reported that in Paraguay introducing this requirement has resulted in fewer complaints than before (Lawyers Committee for Human Rights, 1998).

challenge an administrative act because of alleged harm to the environment (public wealth); and (ii) Public Civil Actions (Art 129, III of the Federal Constitution) under which the Public Ministry and NGOs have legal standing.

It is said that the Brazilian Public Ministry is an unique institution in Latin America. It operates completely independent from the government and has evolved as the main plaintiff from environmental protection in Brazil. In other countries, civil actions may also be brought by other actors, such as an ombudsman (*defensor del pueblo*).

4.1 The Interaction of Public/Private Enforcement

Low levels of public enforcement could be expected to increase the private benefits from private litigation activity. Violations could be expected to be more frequent and more serious in periods of lax enforcement. It follows that the privately optimal level of private enforcement is inversely related to the amount of public enforcement. All other things being equal, we would expect more citizen enforcement activity in countries with diminished government enforcement activity. Similarly, within countries, we would expect more private enforcement activity during periods of reduced public enforcement.

However, private enforcement clearly also has potential disadvantages to society. A public enforcement agency which has a clearly articulated and effective strategy for allocating its resources to enforcement activities could find its priorities completely subverted by private enforcement activity. Responding to complaints and court challenges of its decisions consumes time and resources. Clearly some balance is needed to assure that legitimate, but not excessive, pressure can be applied by private enforcers (Tietenberg, 1996). In his report, Tietenberg identifies two specific problems with the private enforcement process: (1) private enforcer priorities in choosing which claims to pursue will not necessarily coincide with social priorities; and (2) private enforcer actions may not support the socially desirable intensity of control. This, however, is not a fatal blow to private enforcement according to Tietenberg. One area where private enforcement may have the edge is in pursuing public polluters and the other is corruption (see box).

Despite the fact that public facilities represent a substantial proportion of the pollution problem, enforcement of pollution control laws presents special problems for public enforcers in most countries. The evidence seems very clear that public enforcement of violations by public polluters has been quite ineffective and the problem is not the inadequate availability of remedies, but rather the reluctance of public enforcers to use the available remedies (Gelpe 1989).

Public and private enforcement can also complement each other. Private enforcement, particularly citizen suits, can take on some of the routine tasks, leaving the more serious problems to the public sector. Focusing public enforcement activity on the most significant problems makes a great deal of sense because of the ease of transferring information and expertise from one case to another. If enforcement were the exclusive responsibility of the public sector, however, focusing on priority areas could open the possibility for polluters operating in non-targeted areas to exploit that decision. Polluters in non-targeted areas would respond to a perceived decline in public scrutiny with reduced compliance. Since private enforcers are not operating on the same set of priorities as public enforcers, the likelihood of private enforcement in a non-targeted area is not diminished. With a continuing threat from private enforcers polluters have a continuing reason for compliance, even when the public sector has its focus elsewhere. The very existence of the private enforcement alternative allows public enforcers more flexibility in targeting their resources, a flexibility which offers the opportunity to use their limited resources more efficiently.

FUNDEPUBICO

FUNDEPUBICO ("Fundación para la Defensa del Interés Público"), established in 1989, is a non-governmental organization in Colombia, and its objective is to defend the public rights of society through judicial actions. Following the publication of a book on Popular Actions in 1989 by its President Germán Sarmiento, FUNDEPUBICO first focused on Popular Actions, and later also on Tutela Actions. Recently, FUNDEPUBICO has established an Environmental Legal Fund to finance the judicial procedures and other actions aimed at defending the environment. The Fund is partly paid through the monetary compensations FUNDEPUBICO receives from the Popular Actions (10% to 30% of the monetary damages).

The first Popular Action of FUNDEPUBICO was brought against the state-owned chemical company Alcalis de Colombia. According to the local environmental authority, the company was the principal source of industrial contamination of the Rio Bogotá, it discharged pollutants in violation of the environmental norms and standards. The action resulted in a judicial order to discontinue any such discharges, and an agreement was reached on the eventual closing of the polluting plant. Other Popular Actions initiated by FUNDEPUBICO are against a chemical industry for contamination of the Bahía de Cartagena and against a large logging company for illegal logging in the indigenous reserve of Chagerado in the Department of Antioquia. Another Popular Action against Cementos Diamante resulted in the judicial order to instal a filter to control the contamination.

Tutela Actions are initiated by FUNDEPUBICO against public authorities in cases where procedural requirements are violated, such as failing to prepare an EIA or not submitting the EIA to the affected community. Such omissions are violations of the fundamental right of due process, and are subject to the Tutela Action. Also, ongoing activities without having the proper permits and licenses, or without meeting the conditions attached to the permits, may violate the constitutional right to a healthy environment and are subject to the Tutela Action.

4.2 The Sustainability of Private Enforcement Actions

By their very nature completely successful private enforcers undermine the very reason for their existence. Once complete compliance has been obtained no more opportunities for claims exist regardless of the underlying incentives. Yet no private enforcement process currently in existence is currently facing that prospect. The level of noncompliance is simply too great.

How then are private enforcers likely to sustain their contributions to the enforcement process? The achievement of a sustainable process requires a self-sustaining source of revenue in order to cover the costs of bringing claims. The "loser pays" principle of allocating

legal costs, which is already a part of the legal system in Latin America, provides a perfectly reasonable vehicle for covering these costs. The reimbursement from each previous successful action provides a fund to be used in pursuing the next action. As long as the claims brought are meritorious, the fund keeps being replenished.

It would be possible to carry this even further by authorizing that penalties be paid directly to private enforcers rather than dedicated to environmental improvement. In this case private enforcement would be a profitable activity and bounty hunters could be expected to join. While this high level of incentive might well be merited in specific circumstances, its dangers should be recognized. Bounty hunters certainly accelerate the movement toward complete compliance. Whenever complete compliance may not be socially desirable, this acceleration may prove to introduce significant problems. Since the U.S. experience indicates that the reimbursement of attorneys' fees may be sufficient to produce sustainability of the process, it may not be necessary to introduce bounty hunter provisions.

5 ALTERNATIVE APPROACHES TO ENFORCEMENT: VOLUNTARY COMPLIANCE

Partly to address the lack of public resources available for environmental monitoring and enforcement, more attention is being paid to the development of strategies that would focus on activities to prevent environmental violations. These strategies are directed to the regulated community itself with the objective to make potential polluters more responsible for and responsive to environmental laws and regulations, capitalizing on other trends such as increased corporate environmental management (strongly influenced by the development of the recent ISO 14,000 standards) and recognition that preventing pollution has significant advantages over end-of-pipe measures (Stahl, 1994). There are several programs being developed to promote voluntary compliance by the regulated community: Environmental Auditing, Outreach and Incentive Programs, Certification Programs, Environmental Education, and Public Disclosure Requirements.

At the minimum, the objective of a voluntary compliance program is to generate public awareness as a means of bringing public pressure on the violator to comply. Work at the World Bank has indicated that merely supplying the public with better information about violations may be a surprisingly effective means of encouraging compliance, especially when more conventional approaches are not available (World Bank, 1997). Public information and disclosure programs also exist in Latin America. In Sao Paulo, for example, air quality levels are shown on automatic digital displays placed in strategic points of the city, together with a list of industry found to be in compliance with the law (IDB, 1996)

More elaborate programs promote the use of self-monitoring and reporting systems. Mainly to compensate for the lack of public resources, it has been suggested to increase the use of such programs in Latin America (IDB, 1996). Brazil has some experience with self-monitoring and reporting although it is reported that they are rarely audited or checked. In Minas Gerais (Brazil), monitoring activities (sampling and analysis) are performed by private laboratories and research centers. In Belo Horizonte, air quality is monitored by an automatic network implemented by PETROBRAS, the Brazilian oil company, as part of permit requirements (IDB, 1996).

Probably the most advanced programs of voluntary compliance are related to environmental auditing. In this respect, Mexico has undoubtedly taken the lead in Latin America. The Federal Attorney for Environmental Protection (PROFEPA) started an ambitious voluntary environmental audit program in 1992 to promote self-regulation. Under the program,

PROFEPA promotes industry participation in the program. PROFEPA determines the Terms of Reference of the audit, supervises the work, and supervises compliance with the agreed upon actions. PROFEPA also regularly consults industry representatives about possible changes to the program. A company that has entered the program is excluded from the normal inspection activities carried out by PROFEPA, unless a public complaint has been issued. The audit process consists basically of three stages: the planning stage, the assessment stage, and the post-audit activities stage. The audit results in an Action Plan which is included in the Environmental Compliance Agreement to be signed by PROFEPA and the company concerned. During June 1992 to July 1997, 775 environmental audits of companies have been conducted. (Calderon Bartheneuf, 1997).

6 THE ROLE OF THE COURTS

As noted earlier, the judiciary plays a crucial role in improving environmental enforcement, both in a system of public enforcement and in private enforcement, especially when the so-called private enforcers need access to court. In the past, successful use of the court has been limited by a number of factors. Probably the most fundamental factor, courts are not always an appropriate way to resolve conflicts. Environmental conflicts are often not well suited for judicial proceedings because of multi-party dynamics; high levels of scientific uncertainty; huge economic stakes with high perceived economic upside risk and high perceived environmental downside risk; and a transnational character. All these elements provide procedural and enforcement challenges which sometimes lend themselves better to other forms of conflict resolutions than the more traditional court proceedings.

Other limiting factors are more inherent to the court themselves. Judges lack training on environmental law and/or don't have easy access to the various laws and regulations. In other cases, the thresholds for bringing a complaint are too high, there are language barriers, or institutional weaknesses, also due to limited financial resources with funding for the courts depending unilaterally on the government (Llermanos, 1994). It has also been noted that some courts have a "historical reluctance to sanction industry" (Llermanos, 1994), and/or a reluctance to impose penalties for acts that do not involve violence to people (Lawyers Committee for Human Rights, 1998).

Over the last years, several initiatives have been taken to address the role of the courts in environmental enforcement. In 1996, the Inter-American Development Bank (IDB) approved an US \$350,000 regional technical cooperation to strengthen the juridical system of the environment in Central America (ATN/SF/NE-5016-RG). The project was coordinated by the Central American Commission for Environment and Development (CCAD, by its Spanish acronym) and executed by CEDARENA, an environmental law center based in Costa Rica. This project has resulted in the preparation of training materials in the form of environmental law manuals for each of the seven participating countries (Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama). In each country, the manuals have been distributed through the justice schools to judges, prosecutors, lawyers, environmental authorities, NGOs, and universities. On the basis of the manuals, the project has resulted in the training of almost 500 professionals. In total 16 workshops have been organized with the active support and participation of the justice schools and universities. In addition, the project has resulted in the strengthening of the national environmental law NGOs through their involvement in the preparation of the materials and the training seminars.

Since 1996, the IDB has approved a number of judicial reform projects. Whenever feasible and appropriate, the Bank includes a component on environmental law in these projects, normally dealing with training and improving access to justice.

Other organizations are also involved in providing training. In July 1996, The Center for Governmental Responsibility (University of Florida) organized a training program for judges, prosecutors and lawyers in Brazil (State of Paraná) for which the Center also prepared a manual (Center for Governmental Responsibility, 1996). Also in 1996, the Colombian Office of the Defender of the People (La Defensoría del Pueblo) organized a seminar for regional and high court judges to instruct them on the national environmental legislation. During the workshop, the judges were trained on the provisions in the legislation dealing with legal mechanisms, such as the constitutional right to "tutela" and "popular actions". (IER, 1996, p. 462.). In Paraguay, the Public Ministry sponsored 18 seminars on environmental law for judges and prosecutors, although it is reported that only few attended (Lawyers Committee for Human Rights, 1998).

Despite these international initiatives, much more work seems to be needed. In a recent publication on Judicial Reform and the Environment, the Lawyers Committee for Human Rights (1998) makes a set of recommendations aimed at improving access to the courts. The recommendations are related to improving administrative procedures and oversight and allowing greater private access to courts through changes in the loser pays rule, and standing and legal representation requirements.

Although no data are known to exist about any increase of environmental cases before the courts, there are reports indicating that training does make a difference (Lawyers Committee for Human Rights, 1998). According to some reviewers, there is growing evidence of litigation around environmental issues in Latin America and the Caribbean (Gracer, 1995). In any case, there has been a number of high profile environmental court cases during the last couple of years. In 1993, Colombia's Constitutional Court declared the right to a clean and safe environment to be a fundamental right which means that if an individual feels his right is violated, he can invoke the Action of Tutelaje to go to court. Public environmental officials are required to carry out the court's decision (EWLA, February 1993, p. 12). In Brazil, a federal judge from Mato Grosso, on the ground that the government had failed to consult with affected communities, in this case an Indian tribe whose 130 members live on an island in the Paraguay river, granted an injunction prohibiting the government from starting work on the Hidrovía project in the Paraguay-Paraná rivers (IER, 1998, Feb 4, p.99). In Chile, the "Rio Condor" logging project in Tierra del Fuego has been stalled by several lawsuits in Chile's courts, challenging the legality of the Environmental Impact Studies conducted for the firm Trillium. Separate suits have been filed by parliamentarians, non-governmental organizations and countersuits by the company Trillium (IER, 1998, Vol. 21, No. 17., p. 824). Other cases are still pending: In Venezuela, Pemon Indians living in the rainforest of southeastern Venezuela are protesting the construction of a power line and have filed lawsuits to challenge the governmental decree that opens up 40 percent of the Imataca rainforest reserve to mining and logging (Decree 1850) and the construction of the pipeline (IER, 1998, Vol 21, No 17, p. 823).

7 CONCLUSION

The developments described above are accompanied by a recognition among policy makers, lending organizations, environmental authorities and enforcement agencies that there's a need to continue to work on institutional capacity building, facilitate access to information, exchange experiences and develop good practices and support alternative approaches.

US EPA and the Netherlands Ministry of Environment, with the support from several other organizations, have established the International Network for Environmental Compliance and Enforcement (INECE). This is a partnership to advance environmental compliance and enforcement. One of the main activities is the periodic International Conference on Environmental Compliance and Enforcement. The materials submitted to these conferences and their proceedings have contributed to the elaboration of a substantial literature on environmental enforcement. The Fifth International Conference will be held in Monterey (CA), USA, November 16-20, 1998.

The Organization of the American States is taking the lead in establishing a hemispheric network of *"officials and experts in environmental law and its enforcement and compliance"* as called for in the Plan of Action of the Bolivia Summit of the Americas for Sustainable Development. It is expected that such a network would focus its activities on facilitating exchange of knowledge and experiences; constitute a focal point for cooperative efforts; and training.

The Center for International Environmental Law (CIEL) has submitted a proposal to the Multilateral Investment Fund (MIF) to finance an electronic database on environmental laws and regulations for Latin America and the Caribbean to facilitate access to their provisions and requirement with the hope that this would result in increased compliance.

In Colombia, representatives from groups like the ones mentioned above have organized national roundtables to explore ways to maximize the use of legal instruments for improving environmental enforcement. Such roundtables could serve as a model for the other countries in Latin America and the Caribbean.

ENDNOTES

1. Each approach has advantages and disadvantages in terms of monitoring and enforcement. With performance standards, for instance, where compliance is normally measured by sampling, monitoring can be difficult and expensive, depending on the kind of instruments required. Technology standards, on the other hand, can inhibit technological innovation and pollution prevention. Therefore, the use of specific standards in certain sectors or cases requires an extensive economic analysis to make sure the requirements are cost-effective.

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