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Exploring Environmental Law & Policy Issues Around the Globe

In This Issue: Environmental Compliance & Enforcement

American University Washington College of Law

Editor's Note

Our gasoline has been unleaded for years, but for many of us, our drinking water has not. The recent disclosure of widespread lead contamination in Washington D.C.'s drinking water unveiled a massive breakdown in environmental compliance and enforcement. Area residents have been unknowingly contaminating themselves with potentially dangerous concentrations of lead for years, despite awareness of the problem by local health officials.

The story broke in late January 2004 and was immediately met with outrage, confusion, and fear. According to the Washington Post, the D.C. Water and Sewer Authority ("WASA") and the D.C. Health Department knew about the problem for at least fifteen months before the public was informed. Amazingly, it took the D.C. Health Department nearly a month from the time the problem was first reported to issue a health advisory. Responding to increasing public concern, the Environmental Protection Agency ("EPA") recently stepped up the pressure on those responsible, charging WASA with violating six requirements of the Federal Lead and Copper Rule for failing to properly notify city residents of the problem and, more generally, for failing to adequately protect public health.

"Our gasoline has been unleaded for years, but for many of us, our drinking water has not."

Ironically, as EPA begins cracking down on the Washington D.C. government to ensure compliance and enforcement of drinking water laws in the nation's capital, the Agency continues to reduce environmental enforcement across the country. Since coming into office in 2001, the Bush administration has significantly decreased enforcement of federal environmental laws. For example, a recent review of fifteen years of enforcement records by the Philadelphia Inquirer showed that the monthly average of violation notices has dropped 58 percent since the Bush administration took office compared to the monthly average under President Clinton. In comparison to the Clinton and Bush I administrations, which issued an average of 183 and 195 citations per month, respectively, the current administration has issued a much lower average of just 77 citations per month.

The precipitous decline in environmental enforcement under President Bush is often justified by the administration as a necessary component of economic growth. However, this strategy of trading off environmental protection for economic gain has been debunked repeatedly, including in a recent report by the White House's Office of Management and Budget, as reported in this issue of Sustainable Development Law & Policy.

Whether the result of industry influence (as in the Bush administration's lax environmental policy) or bureaucratic malaise (like we have seen in the D.C. lead case) diminished compliance and enforcement will inevitably result in widespread environmental degradation and continuing public health crises.

Fortunately, the administration's policy of reduced enforcement is not the entire story. Indeed, there are many hard-working government officials who tirelessly work to ensure environmental compliance despite the clear change in policy at the top of the administration. The article by Jim Rubin, the head of the international environmental enforcement division at the U.S. Department of Justice ("DOJ"), discussing the DOJ's efforts to combat transnational environmental crime, exemplifies an area where significant progress continues to be made.

However, as Marsha Mulkey's terrific feature article discusses, achieving high rates of compliance depends as much on clear legislative drafting and consistent judicial interpretation, than on diligent enforcement. Transparency, public disclosure of accurate environmental indicators, and informed public participation are all essential components to effective environmental governance. Even the most far-reaching laws and policies will fail absent vigorous and consistent compliance and enforcement.

Dave Newman
Editor-in-Chief

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JUDGES AND OTHER LAWMAKERS: CRITICAL CONTRIBUTIONS TO ENVIRONMENTAL LAW ENFORCEMENT

*by Marcia E. Mulkey**

INTRODUCTION

Most of the dialog about environmental law enforcement starts with the assumption that the law is established and concentrates on those who are actively engaged in assuring compliance with the laws. As a result, much of the focus on building of enforcement capacity emphasizes the identification, investigation and prosecutorial response to law violations (or, as a supplemental or alternative approach, the education, encouragement, and inducement of law compliance). This paper addresses the less frequently discussed but vitally important role of law-makers in the success of enforcement and compliance programs. Broadly defined, law-making involves the activities of legislators and law drafters, regulators and regulation-drafters, permit writers, license preparers, and all others who codify the applicable requirements as well as the activities of judges and other adjudicators who apply the law to the facts of particular cases in ways that define the scope and nature of the law. Judges, of course, do more than "make law". They are critical arbiters of the fairness of the system, help assure reasonable consistency among similarly situated cases, and provide the mechanism through which intransigent law violators can be compelled to comply.

This paper addresses the important ways in which law-making can and should enhance and support enforcement of environmental laws, whether at the sub-national, national or international levels. It also discusses the special role of judges (and similar adjudicative decision-makers) in the environmental enforcement process and draws conclusions about opportunities to improve the effectiveness of law-making and judging in the environmental law context. Because judicial law-making and other critical judicial contributions to environmental law enforcement occur only after and based in part upon law made by legislators, regulators and permit preparers, law drafters and judges are covered in "Enhancing Environmental Enforcement in the Law-Drafting Process" and "The Special Role of the Judiciary," and "Conclusions and Suggestions for Improving the Effectiveness of Judges and Other Law-Makers" is devoted to conclusions and suggestions applicable to either or both.

ENHANCING ENVIRONMENTAL ENFORCEMENT IN THE LAW-DRAFTING PROCESS

ASSUMING THE ENFORCEMENT OF ENVIRONMENTAL REQUIREMENTS

While many considerations influence the drafting of instruments imposing environmental requirements, none can be fully effectuated without clarity in conveying the choices involved

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*Marcia E. Mulkey is Visiting Professor of Law at Temple University's James E. Beasley School of Law. She is serving on an Intergovernmental Personnel Assignment from the United States Environmental Protection Agency, where she is a member of the Senior Executive Service. The ideas expressed here are her own and not necessarily those of the USEPA. The author thanks Joseph Anclien of Temple's Law School and Melanie Nakagawa and Kristen McGeeney of American University's Washington College of Law for their work to help assure that this article is fully supported and documented. Portions of this article appear in a somewhat different form in a document prepared by this author for use by the United Nations Food and Agriculture Organization preliminarily titled *Guidelines on Compliance and Enforcement of Pesticide Regulatory Programme*.

and mechanisms to determine whether those choices are successfully implemented. Whether based on technology availability or desired levels of protection, on absolute values or cost-benefit considerations, with detailed specificity or with performance expectations and flexibility of acceptable approaches[1] the chosen requirements are, in the end, designed to be followed. Put simply, without compliance with the environmental protection choices reflected in environmental law requirements, such requirements are empty gestures at best and misleading shams at worst. This section discusses a range of considerations that go into assuring that environmental law drafting (whether legislative, regulatory, or permitting) succeeds in creating instruments that assure that compliance is achievable and that non-compliance can be identified and addressed.

Technical and Economic Realism

As a threshold matter, requirements must be possible to achieve and be practicable in the circumstances in which they are applied. While it is certainly appropriate to establish requirements that are not easy to achieve and that require costs and effort (even considerable costs and effort), there is no way to comply with-or to enforce successfully-requirements that are plainly impractical. If requirements are too stringent, depend on technology that does not exist and cannot be developed, are effective so quickly that the regulated community cannot take the necessary steps to comply or involve costs well beyond the capacity of the regulated community to bear, the result can be a lack of respect for compliance with law and a lack of willingness on the part of government to enforce.[2]

"Law-drafters at all levels can be critical players in assuring that helpful, relevant, timely and accurate information is disseminated."

Legislative designers may feel that it is preferable to establish a very high standard in order to express the most desired outcome or to accommodate public desires for the highest levels of protection. However, if the intent is ever to achieve such outcomes and desires, it is generally advisable to describe such high standards as goals, to establish them with a longer-term effective date, or to limit their initial application only to larger commercial entities or to situations where additional resources can be made available to assure achievability. If there is not some way to bridge the gap between the possible and the legislatively required, the requirements are doomed to failure.[3]

Ease of Understanding; Accessibility

In the environmental field, where both the environmental conditions of concern and the mechanisms to achieve environmental protection involve complex science and sophisticated technology, it is often difficult to describe requirements with clarity and simplicity. When one adds to the scientific complexity the additional challenges associated with policy considerations that encourage flexibility, avoidance of unnecessary burdens, and harnessing of market forces and other incentives, the law-drafter is presented with many competing pressures. Notwithstanding this difficult juggling act, the law-drafter cannot escape the plain truth that only those requirements that are understood can be obeyed. The goal, for this purpose, is clarity, understandability, and the avoidance of ambiguity. Achieving that goal is no small task. Law drafters must clarify who has the obligation.[4] Definitions of key concepts are often critical, especially for distinguishing such things as product from waste.[5] The requirement should be clear about the time period covered,[6] about the spatial reach, and about whether and when any exemptions or exceptions apply. [7]

One effective technique for law drafters to assure that requirements are achieving the intended message is to think through how they themselves could go about avoiding having to comply with the intent of the requirements by exploiting loopholes or taking advantage of unclear provisions.[8] Similarly, the requirements could be shared with persons expert in the regulated activity in a way that evaluates whether there is full and accurate understanding.[9] Persons with enforcement experience, especially those experienced in field investigations and in development of legal actions in response to violations, can help identify potential problems with clarity. Based on this kind of feedback, the requirements can then be written to minimize the opportunities for misunderstanding and evasion.

Of equal importance to understandability is accessibility of information about applicable requirements. No matter how clearly set forth, requirements that are not known to the regulated community will not be followed. On the other hand, complex and highly technical requirements that are accompanied by adequate information and assistance delivered in a manner that is workable and effective for regulated entities can often be fully and effectively implemented. It is for these reasons that compliance assistance efforts by government, industry groups, private consultants, attorneys, and others can play such a crucial role in the implementation of environmental compliance programs.[10] Law-drafters at all levels can be critical players in assuring that helpful, relevant, timely and accurate information is disseminated through these various methods. Careful and understandable documentation of legislative and regulatory history, accompanying compliance manuals, and other contemporaneous materials designed to both explain the requirements and to target relevant audiences with affirmative outreach efforts can all be part of the law-drafters' role.[11]

Clear and Defined Duties; Mandatory Language

No matter how carefully crafted or technically clear, legal provisions can only give rise to a genuine duty if they are worded so that they specifically impose a duty. For example, a statement that a person (owner, operator, user) *should* act in a certain way will generally be seen only as advice or encouragement. The failure to do so would not clearly violate any enforceable duty.[12] While there could be a number of sound reasons to include certain advisory or hortatory provisions in environmental regulatory instruments, such provisions should not be regarded as effective if the intention is to obtain full and meaningful compliance. Words like *must, is required to, mandatory, shall, has the duty to* all help to ensure that obligations bear the force of law.[13] The problem with choice of language that is not sufficiently mandatory tends to occur more frequently in the permit or license drafting context, where there are fewer persons involved in the drafting and the law-drafters may be less experienced or trained in choice of language considerations.

While clearly stating specific duties in the substantive provisions of environmental laws, regulations and permits may be sufficient to assure enforceability, many law drafters also address enforceability through enforcement provisions, which not only establish such things as the forums for adjudication of violations or the nature of available sanctions,[14] but also specify what constitutes a violation or an unlawful act under the law.[15] While these "enforcement" provisions are most common in statutes, they can also be included in regulations (so long as they are consistent with the statute under which the regulations are promulgated) and in permits or licenses (again, consistent with the governing authority under which they are issued). These kinds of provisions can have the effect of clarifying and emphasizing the mandatory nature of the duties set forth elsewhere in the statute (or regulation or permit) and of assuring that the regulated entity has full and fair notice of what actions or omissions constitute enforceable violations. If this approach is used, however, it is important to be sure that all the duties described elsewhere in the law are brought into these provisions, unless there is a specific intent to omit them and exempt them from the duty to comply or to render that duty unenforceable through sanctions or mandatory legal action.

Measurability; Ease of Detection

It is, of course, critical for both the regulated entity and for the government to be able to detect, determine, and measure whether there is compliance with a requirement. In the absence of this fundamental capacity, neither can know whether compliance is achieved, and the government cannot carry any burden of proving or demonstrating violations.[16] Whether or not compliance measurement[17] is made a part of the duties imposed, the availability of reasonable, practicable approaches to measurement is critical to the effectiveness of any requirement. While the technical complexity of particular requirements or policy considerations relating to regulatory burdens or regulatory flexibility may lead to situations where simple, instantaneous, and inexpensive compliance measures are not available, no requirement should be embraced until the law drafters can identify some workable means for both the regulated entity and the enforcing government to evaluate compliance. As noted here, the law-drafters may provide for the enforcing governments to rely on compliance demonstration requirements imposed on the regulated, but in those situations, effective governmental enforcement would depend on clarity about when and how such demonstrations are or can be required.[18]

ASSURING THE AVAILABILITY OF ADEQUATE LEGAL TOOLS

While the emphasis of the previous section is upon the characteristics of law drafting at the stage of designing and imposing specific environmental protection requirements, this section addresses the provisions of law which provide the authorities and tools necessary to conduct effective enforcement activities and create a climate of credible governmental capacity to oversee, motivate, and mandate compliance. In many legal regimes, provisions of law outside the four corners of specific environmental statutes will have significant impact on both the availability of particular enforcement instruments and options and on the constraints and limits on their use.[19] Notwithstanding these more broadly applicable authorizations and limitations, law drafters can and should consider whether and to what extent environmental statutes and implementing regulations and licenses might include provisions designed to assure the availability and responsible use of mechanisms to provide for comprehensive, efficient, effective, and fair enforcement.

"At the heart of every compliance approach is the interaction between the regulated community and the enforcing authority."

Compliance Monitoring

At the heart of every compliance approach is the interaction between the regulated community and the enforcing authority.[20] Regardless of the enforcement "philosophy" adopted by government, which might range from a primarily incentive or reward based approach through a mixed multiple-tool approach to a purely deterrence/punitive approach,[21] government will need to be able to evaluate the extent, nature, and state of compliance. In order for government to motivate compliance by any means or combination of means, it must have some capacity to

understand the extent of compliance and non-compliance with enough particularity to identify the significance for success or failure of the desired environmental protection. In order to plan enforcement priorities and target limited resources, government must have some understanding of what levels of compliance are occurring for the various requirements and regulated sectors. In order to become involved in motivating individual regulated entities, government must have the capacity to investigate and evaluate compliance at the entity or facility level.

Monitoring of compliance can be based on record-keeping and self-reporting by regulated entities, inspections or other investigations, and measurements of prevailing environmental conditions. Each of these approaches can be enhanced by specific and thoughtful law drafting.

Self-Monitoring, Self-Record Keeping and Self-Reporting

Law drafters may encourage or require self-monitoring, self-record keeping, and self-reporting by regulated entities, either as a broadly applicable part of general environmental law requirements or with particularity for certain facilities, sizes of operations, or periods of time. Such provisions shift much of the burden for documenting compliance from government to the regulated community. They sacrifice some of the independence and credibility of government for the increased expertise, efficiency, and cost allocation associated with the regulated community. The required information can relate directly to compliance status[22] or it can relate more broadly to environmental or ambient conditions.[23]

"The way in which judges understand and apply existing law serves as a powerful feedback loop to the drafters of statutes, regulations, and permits."

These tools can make a big contribution to the enforcement process by supplementing scarce government resources, and it is almost always sensible for legislators to authorize governments to require self-monitoring, record keeping, and reporting in appropriate circumstances. The decision whether to actively require such activities in implementing regulations and permits should consider several factors: 1) practicality, costs, and burdens to the regulated community; 2) usefulness and intended purpose of the information;[24] 3) reliability and credibility;[25] and 4) ability of government to oversee and manage the information,[26] including whether to make the information publicly available.[27]

Inspections and Investigations

Even with strong and comprehensive self-monitoring and reporting, governmental capacity for independent evaluation of compliance activities will depend in part on the legal framework provided for inspections and investigations. Effective inspections and investigations, for example, require adequate authority for physical access to facilities, for opportunities to interview knowledgeable persons, for review of books and records, for obtaining physical samples, for use of measuring and analytical equipment, or for taking photographs or other reproducing images. All of these opportunities carry the potential for abuse or overreaching, and law drafters must balance the need for effectiveness and efficiency against considerations of fairness and burden.[28] Because effective inspection authorities must be both broad and relatively intrusive, measures to insure governmental integrity acquire great importance. One way to build confidence in the exercise of these authorities is to limit their use to persons who have government-issued inspector credentials.[29]

Well-designed inspection regimes will account for circumstances in which entry is denied and assure that legal mechanisms are available for inspectors to obtain the aid of the courts, the police, or some other appropriate authority that can both assure necessary access and allow owners or operators to challenge whether the access is lawful. Where practicable, environmental investigative authorities should be consistent with comparable authorities under other laws, such as health or occupational safety provisions, that are likely to apply to the same facilities. This helps promote cross-training of inspectors, sharing of expertise and techniques, and effective information sharing about facilities.

Other Monitoring and Evaluative Tools

Law drafters may also consider providing legal mechanisms to support government or private environmental monitoring, hot lines and other citizen-based reporting, and cross-program information sharing.[30] In addition to authorizing these various options, legislators can provide for funding to support them. Regulatory and permit drafters can develop provisions that facilitate the use of these kinds of tools.[31]

Orders and Injunctive Authorities

Compliance Orders

Although the statutory and regulatory provisions may clearly impose duties, the government's detection of a violation is not always sufficient to motivate the violator to comply. Legislative drafters can provide government with the tools to require compliance. Even where the violator is willing to comply, it may not always be possible to do so quickly, and good enforcement practice may warrant orderly oversight of a schedule and intermediate steps to compliance. Compliance orders can specify the steps necessary to achieve compliance, establish reasonable but firm deadlines, and create the potential for escalating consequences

for those who do not obey the requirements. Compliance orders can also provide for the shutdown of operations, suspension of permits or other measures where they are necessary to prevent and address violations.

Compliance orders may be either administrative or judicial (civil).[32] They may be issued with the consent of the violator, where the terms are negotiated and agreed to by both the enforcement agency and the violator (and in the case of the courts, approved by the court.) Negotiated orders are usually termed "consent orders" (or "consent court decrees") and may include provisions for resolving disputes that arise under the order or an agreed-upon penalty for violation of terms of the orders. Most law drafters simply provide authority for the issuance of administrative or judicial orders and the authority for consent orders is inferred from such authority.[33] So long as general order authority is provided, compliance orders that cannot or should not be obtained through negotiation and consent can nevertheless be issued. If law drafters want to be sure that there is complete clarity about the availability of both consent orders and unilateral orders, it could be useful to explicitly provide for both.[34]

Law drafters may explicitly provide that enforcement agencies can seek from the courts both preliminary compliance orders (i.e. prior to resolution of the merits of the claims about the violations) and final orders (following resolution of the substantive claims). Where fully matured legal systems provide for both preliminary and permanent injunctive relief for all types of proceedings,[35] it may not be necessary to make any such explicit provisions in specific environmental laws. In the absence of such a system, law drafters may wish to explicitly authorize this kind of flexibility, in light of the significant human health and environmental issues that can be present in some environmental enforcement cases.

While court-issued orders will, by definition, require that enforcing agencies bring the matter to the court, there can also be situations where administratively issued orders will also come before courts. If alleged violators choose to refuse to comply with administrative compliance orders or to challenge such orders,[36] the matter could come to the court either through a mechanism by which the alleged violator may appeal the order to the court[37] or through an approach by which the enforcing authority may take the matter to the courts to seek judicial enforcement of the order. It is useful for law-drafters to clarify which of these routes is intended.[38]

It bears mention that compliance requirements can be imposed in connection with criminal proceedings. At the point of criminal proceedings where guilt has been established, the question of an appropriate sentence will arise. Specific criminal sanction authorities are discussed in section "Criminal Sanctions" infra. In addition to sanctions, judges can impose conditions on the criminal sentence which could include compliance requirements.[39] While the authority to impose such conditions on sentences may generally be inferred from sentencing authority, any uncertainty about that option could be addressed at the law drafting stage.

Emergency Authorities

In certain, usually rare situations, government may need an immediate and strong mechanism to ameliorate an imminent hazard or to stabilize and address the adverse impacts associated with an emergency situation. Such situations involve harm that is already occurring or appears imminent and may result from accident or deliberate acts. Due to their emergency nature, these situations may warrant action before an adequate investigation into causation or fault or they may warrant action independent of the issue of whether there has been a violation of law. In these circumstances, emergency authorities can provide an orderly, effective, and reasonably circumscribed governmental response. Legislative provisions for emergency authorities can take the form of administrative or judicial orders issued to owners, operators, or other responsible persons to stabilize the situation, contain or rectify the immediately hazardous conditions, or provide necessary protections for affected persons.[40] Whether the order authority is designed to be administratively issued in the first instance with recourse to the courts to obtain compliance with such orders or to be sought directly from a court from the outset, either the overall judicial system or the specific enabling legislation will need a mechanism for expedited proceedings and rapid action by the courts.

"... strong and swift judicial action may be essential to the integrity of both the particular enforcement situation and the overall program for compliance with environmental law."

Sanction Authorities

Sanctions are the various forms of adverse consequences that can be imposed upon violators as a tool either to motivate the specific violators, usually called specific deterrence, or to motivate other potential violators, usually called general deterrence.[41] Sanctions can also be used to promote economic fairness by removing or reducing the competitive advantage that may be gained by those who violate rather than bear the cost of compliance.[42] Generally, such adverse consequence may be either civil (or administrative) monetary penalties or various criminal sanctions.

Civil Monetary Penalties: Administrative and Judicial

As part of designing the authority to issue monetary penalties, choices must be made about where the authority is established (administrative, judicial, or both), the amounts and types of such penalties, how they relate to multiple violations at the same time and violations over time, and the procedures for imposition, challenges, and appeals.

The threshold question of whether to provide for penalties that may be imposed directly by administrative authorities or to require that enforcement agencies seek penalties only through the court system is closely related to a host of other considerations regarding administrative and judicial enforcement mechanisms.[43] In broad terms, administrative authorities may be more efficient, faster, and lower profile. The counterpart effect of those characteristics could mean that administrative mechanisms involve fewer safeguards and carry less impact and clout. Administrative penalty systems may be best designed and used where relatively modest penalties are appropriate or where rapid and efficient responses are particularly valued.

"Environmental law is emerging as a leading area for international judicial networking."

It is possible and may be desirable, to provide for both administratively and judicially imposed civil penalties. This approach allows the enforcement agency to tailor the penalty response to the facts and circumstances of each situation. Where the amount of potential penalty is set lower for administrative than for judicial actions, lawmakers should set the administrative limit high enough to provide for meaningful use of the administrative tool.[44]

The legislative amount authorized for penalties involves a number of complicated questions. It is extremely difficult if not impossible to establish in legislation a precise penalty amount that is appropriate across the full range of violations and violators. This problem can be addressed by establishing a set maximum penalty amount for each violation or for each day of violation. Under this approach, the implication is that the maximum penalty is designed for the most extreme, severe, and compelling circumstances. In order for this assumption to prove workable, it becomes important both to set the maximum at a significantly higher level than would be appropriate for many or most "normal" situations and for all concerned to understand that this is the case. One way that statutes can attempt to address the necessarily wide discretion that this leaves to enforcement agencies and courts is to enumerate criteria that should be considered in setting penalties, ranging from factors like seriousness and duration of violations to size and compliance history of violators.[45] In general, the maximum penalty should be sufficient to recapture the economic advantages from non-compliance where appropriate.[46] Setting a specific currency value for penalties can be complicated where currencies are unstable and inflation is rapid or highly unpredictable. One answer can be a process for the fixed amount to be automatically or easily adjusted.[47]

Criminal Sanctions

Wherever violations of environmental laws can be categorized as crimes, there will be some kind of provision for criminal sanctions. In some systems, the criminal law contains all of the various elements applicable to environmental crimes, and no additional separate law-making is left to the drafters of the environmental statutes. For this approach, it may only be necessary to define violations of the various environmental statutes as crimes.[48] Usually, though, either the environmental laws or the general criminal laws or both will benefit from greater particularity and specificity regarding both criminalization of environmental violations and the scope and nature of criminal sanctions.

The nature, use, and significance of criminal sanctions for environmental violations can vary considerably across national legal systems. If the environmental protection approach includes extensive and workable civil (perhaps including administrative) penalty authority, criminal sanctions will likely be reserved for the more severe and egregious cases and will be available only after the government has met a high standard of proof.[49] In systems with limited or no civil, judicial, or administrative penalty authority, the criminal law system may be used for much less serious violations across a large segment of regulated behaviors.[50] In this latter context, both the degree of social stigma and the severity of criminal sanctions is likely to cover a broader range to reflect the varying degrees of importance attached to such violations.

Despite these widely variant approaches to the role of criminal enforcement in the environmental context, the basic types of potential criminal sanctions are monetary (e. g. fines or forfeiture) and various forms of loss of liberty (up to and including imprisonment).[51] Lesser forms of restraints on liberty might include mandatory public service, "house arrest," or constraints on travel or movement. Since corporations usually cannot perform these liberty related sanctions, criminal penalties on corporations or other entities usually involve fines, although individual corporate officers can be held liable in appropriate situations.[52]

In setting the statutory levels of applicable criminal sanctions, whether monetary amounts or duration of imprisonment or other confinement, lawmakers face the same basic considerations as discussed regarding civil penalties, *supra* at "Civil Monetary Penalties: Administrative and Judicial." And, as in that context, where the issue is resolved through setting a maximum level for given violations or violation days, thought should be given to providing guidance about the exercise of discretion in imposition of particular sanctions for specific cases.

Such guidance might take the form of statutory criteria or administratively issued detailed provisions.[53]

Citizen Suits and Other Enforcement Approaches

So far, this section has identified and discussed a range of authorities and legal provisions that allow, support, or enhance governmental exercise of the enforcement function. Certain other governmental actions can have the effect of achieving compliance or punishing or deterring violators. These include barring violators from participating in government programs or contracts,[54] the termination or suspension of licenses or permits,[55] or the shutting down of facilities or the seizure or stoppage of sales of goods.[56] These kind of authorities can be established for administrative or judicial implementation and will need mechanisms for challenges and appeals as ultimate recourse to the courts to assure their effectiveness.

Although governmental entities are almost always likely to be the prime enforcement operators under any legal system, there may be significant impacts on environmental law compliance as the result of other actors and entities. Banks and other lenders may condition funds availability on environmental compliance. Insurers may require compliance as a condition of obtaining insurance or of recovery of claims. Institutional or general public consumers of goods may condition purchases on environmental law compliance. Private business associations may establish formal or informal mechanisms to enhance member compliance. Environmental and other law drafters may wish to encourage, facilitate, or even mandate certain of these private mechanisms to support environmental law compliance. For example, legal mechanisms for greater public access to information can facilitate all of these approaches.[57]

Private lawsuits represent another avenue for direct or de facto enforcement of environmental laws. Some may be grounded in various common law principles, especially torts,[58] but others may be based on express statutory provisions for citizen enforcement of environmental requirements. These mechanisms by which citizens effectively serve as private attorney generals are generally called citizen suit provisions in U. S. federal environmental law.[59] Law-makers may choose to make explicit provision for such causes of action and may provide implementing details regarding who may bring such actions,[60] where they may be brought, what remedies may be sought,[61] and against whom.[62] Either the environmental statute or more general legal provisions may allow for the payment of attorneys fees to successful citizen plaintiffs.[63]

The Special Role of the Judiciary

The Judiciary as Law-Maker

Without opening the debate of whether judges should be activist and expansive in the development of law or confined and constrained by narrow construction of applicable law,[64] it is safe to conclude that judges serve as law-makers in a number of important ways. In each instance of the application of law to the facts of a case, the judge will necessarily clarify and interpret the law for that case.[65] Whether in common law legal systems driven by res judicata[66] and stare decisis[67] or in code-based systems where judicial opinion may only have persuasive effect in later decisions, judicial decisions have a significant impact upon subsequent cases with similar law or facts.[68] The way in which judges understand and apply existing law serves as a powerful feedback loop to the drafters of statutes, regulations, and permits. In the particularization of injunctive relief, judges may describe specific steps and elements of law compliance. Through all of these routes, judges are either making law or influencing the making of law.[69]

In its most fundamental sense, judicial interpretation and implementation of legislation, regulations, licenses, or permits may come in the context of legal challenges to such provisions. Legislation may be challenged as unconstitutional or ultra vires in some way.[70] Regulations are frequently reviewable by courts.[71] Permits, licenses, and administrative orders may be appealable to the courts, before or after an administrative appellate process.[72] Beyond direct legal challenges, all forms of environmental legal requirements may be subject to judicial interpretation, clarification,[73] and application in the context of enforcement cases, whether civil or criminal, or whether initiated by government or by citizens. In all of these types of judicial involvement, the opportunity is available for judges to contribute materially to the clarity and enforceability of such provisions. In some situations, judicial interpretation may enhance the understandability and enforceability of the requirements. In others, judicial review may identify shortcomings in existing legislation that impede or prevent effective enforcement.[74]

The Impact of the Judiciary on the Climate of Compliance, Respect for the Rule of Law, Societal Norms and Expectations

A fundamental and central tenet of successful environmental protection compliance and enforcement programs is the credibility and integrity of the government.[75] If government is or is perceived to be corrupt or even merely capricious and unfair, it is unlikely that the regulated community or the society at large will support environmental compliance goals.[76] An independent, professional, and credible judiciary is a key component of the rule of law, respect for law, and belief in governmental integrity.[77] Because of its role as an arbiter of competing interests and its neutrality in any specific dispute, the judiciary's upholding of appropriate and well-grounded environmental protection laws and actions to implement them adds materially to their acceptance by society at large. By the same token, the judiciary's rejection of inappropriate application of such laws increases the trust of all in the system and reinforces the expectation that such laws can and will be soundly applied.[78]

By contrast, if the judiciary exhibits ineptitude, corruption, bias, or hostility to legitimate legislative and executive action, the balance necessary for acceptance of the entire governmental

structure is undermined and environmental law compliance (and other types of law compliance) will suffer or completely collapse. It is, therefore, not exaggeration to say that as the judiciary goes, so goes environmental law compliance.

The Balancing Role of the Judiciary to Moderate Prosecutorial Excess or Address Official Malfeasance

While, as discussed *supra* at "Orders and Injunctive Authorities," legal authority to conduct effective investigation and legal tools to assure a strong, behavior-changing response are critical aspects of effective environmental legislation, the exercise of such authorities, and use of such tools should be responsible, fair, and consistent with the rights of affected persons and entities. These are considerable powers, and therefore susceptible to considerable abuse.

An independent judiciary provides a mechanism for accountability and oversight that can both deter misuse of enforcement power and correct and redress such misuse when it occurs. The courts may establish practices or implement legislative provisions that prevent the use of wrongly obtained evidence,[79] that impose sanctions on offending officers or agencies,[80] and that provide compensation to wronged individuals or entities.[81] By these express measures and a myriad of specific approaches as matters come before the courts, judges can establish the tone for the exercise of investigative and prosecutorial discretion and for professionalism and ethical standards in environmental law enforcement.

The Role of the Judiciary in Assuring the Timely and Effective Use of Legal Enforcement Mechanisms

While the statutory availability of adequate enforcement mechanisms is a necessary starting point and the capacity and will to exercise these authorities is prerequisite, the courts provide the ultimate recourse where there is resistance to investigation and unwillingness on the part of the regulated community to comply with the demands of the enforcement authorities. In the absence of a judicial backstop, both intransigent violators and those who are generally responsive to clear governmental action but unwilling to comply without credible government enforcement,[83] will likely continue to violate. If the involvement of the judiciary leads to inordinate delays,[84] major unpredictability, or a perception of corruption or incompetence, the judicial backstop is essentially nullified.

As part of a system that permits and promotes effective environmental law compliance, a credible and capable judiciary is crucial. In certain specific situations, such as a refusal of access to inspectors, emergency conditions, or persistent intransigence by violators, strong and swift judicial action may be essential to the integrity of both the particular enforcement situation and the overall program for compliance with environmental law. In the more comprehensive context of the complete docket of environmental enforcement matters that come before the judiciary, a consistent, fair, and sufficiently forceful response to demonstrated violations becomes a foundation of the entire system of environmental law enforcement.

Judicial Contributions to the Overall Transparency and Openness of Enforcement

Although statutory provisions and choices by implementing enforcement agencies generally control the extent and nature of the overall transparency and openness of a government's approach to compliance and enforcement, there are a number of mechanisms through which the courts can contribute to these important aspects of sound environmental law compliance programs. Court systems often, for example, control the manner and extent to which cases are publicly reported and the ease with which they can be accessed by practitioners and others.[85] Courts can support and even undertake efforts to compile information about cases and decisions and to analyze trends or patterns in them.[86] These kinds of efforts may be particularly important in code-based legal systems which may lack the long history of ready availability of relevant prior court decisions.[87]

Conclusions and Suggestions for Improving the Effectiveness of Judges and Other Law-Makers

Training and Skills Enhancement

As a starting point for skills development, law school curricula would benefit greatly from enhanced attention to statutory and regulatory drafting, including enforceability considerations.[88] Specialized continuing education and training for law-makers in drafting of substantive provisions for enforceability and in development of adequate statutory enforcement provisions is available, but relatively rare.[89] Judicial training is increasingly organized, expected, and enhanced in the U.S.,[90] though it has not been without controversy. Other nations also make extensive use of judicial training programs and institutions.[91]

Because environmental cases can be very complex in both law and facts, judges might also benefit from some specialized training in the subject-matter of environmental protection.[92] While "environmental courts" are quite rare,[93] sub-specialization within a court is a somewhat more frequent phenomenon, either explicitly or informally.[94] Usually, though, environmental cases are likely to be assigned in a less systematic way and it becomes important that the whole judiciary be better prepared to understand and act responsibly in environmental cases.[95] A number of recent international initiatives are attempting to promote this kind of subject-matter awareness-raising and training for judges, nationally, regionally, and world-wide.[96]

Networking

Interaction, cooperation, and collaboration among professionals with similar responsibilities, challenges, and experience can be both useful and personally satisfying. Networking across organizational, political, jurisdictional, or geographic boundaries can provide an efficient, nonbureaucratic mechanism for shared learning and skills development.

At the international level, a rich and growing body of literature now identifies international networks of various types of government officials and others with language as strong as a "new world order."[97] These kind of networks can and do operate among legislators, agency personnel, and judges[98] and can operate at the international, national, or subnational level. While organized activities among legislators or judges are increasing, especially at the international level,[99] networking around a specific substantive area of the law is still relatively rare. Happily, environmental law is emerging as a leading area for international judicial networking. When one reflects on the fact that there are only a small handful of specialized environmental courts of any type in any nation and that neither civil nor criminal dockets are by any means dominated by environmental cases, this level of international judicial engagement is somewhat extraordinary. A group of more than one hundred and thirty judges from more than 60 countries met in Johannesburg on the eve of the World Summit on Sustainable Development and produced a "Statement of Principles" relating to justice and the environment,[100] a truly unusual development in the history of foreign affairs.

The Johannesburg meeting of the jurists followed on the labors of the Division of Policy Development and Law of the United Nations Environment Program, which had been working for several years in regional judicial symposia and other meetings, and has been followed by several other, mostly regional gatherings of judges, some quite prominent, who appear committed to judicial networking on environmental topics.101 Among the topics of evident interest to these judicial networks is enforcement and compliance. This robust model of international judicial networking in the area of environmental law enforcement can serve as a model for similar international, national, or subnational networking among legislators, regulatory drafters, permit writers, and all other types of actors in the area of environmental law enforcement.[102]

Exportation of Best Practices

Successful models from other systems or experiences can be adopted or adapted if and when certain preconditions are met. The "best practices", in this instance for law-drafting and judging, must be known and understood by those who might adopt them, must be adaptable to the "importing" situation, and must be sufficiently admired and respected to receive a fair and full consideration. Education and training (*supra* at "Training and Skills Enhancement") and networking (*supra* at "Networking") contribute to these preconditions. So do all the means by which the activities of law drafters and judges are made transparent (*infra* at "Feedback, Accountability, and Measurement") and supported by legislative or regulatory histories and other amplifying materials (*supra* at "The Balancing Role of the Judiciary to Moderate Prosecutorial Excess or Address Official Malfeasance").

Fortunately, most legislative and regulatory materials, as well as many individual permits, are typically publicly available and easy to access. Some developing countries and systems without fully developed judicial administrations may not routinely and comprehensively publish judicial decisions, but a large volume of "judge-made law" is also widely and readily available from throughout the world. It only remains, then for comparative environmental law studies to focus on enforcement and enforceability issues. Judges also have the option and the opportunity to turn to extra-territorial sources for relevant and useful models and sources of law, insight, reasoning, or perspective.[103]

Feedback, Accountability, and Measurement

As noted, *supra* at "The Judiciary as Law-Maker," judges perform a form of feedback and accountability function for environmental law drafters and for environmental enforcement agencies which can contribute in major ways to the overall credibility and effectiveness of the system. In a more judiciary-specific way, courts, judges, and the judicial system can adopt mechanisms and processes which provide feedback to the judiciary and which improve accountability and measurement of judicial effectiveness. For example, the judicial system can track and report on such measures as time to decision, frequency of reversal by higher courts, back-logs of undecided cases, and the like. Academic and other independent institutions can be encouraged to study and evaluate the judiciary.[104] All of these approaches can be adapted with particular attention to judging in environmental cases and environmental issues.[105]

Conclusion

Effective law enforcement and reliable compliance with environmental laws are necessary if environmental protection efforts are to produce their desired results. This article has identified the critical role that lawmakers, both as drafters and judges, can and should play in promoting environmental compliance. While other governmental and non-governmental actors are often the primary focus of thinking, scholarship, and writing about environmental compliance and enforcement, the particulars identified and elaborated here illustrate the fundamental foundation function of law-making and the rich opportunities for judges and other lawmakers to promote and enhance environmental law compliance and environmental protection throughout the world.

ENDNOTES: Judges and Other Lawmakers

[1] *See* S. BREYER, REGULATION AND ITS REFORM (1982) (discussing different accounts of the functions of regulation). *See also* Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333 (1985) (discussing the need for change in the approach of environmental laws); Jeffrey E. Howard & Linda E. Benfield, 16 COLUM. J. ENVTL. L. 143, 169-175 (1991) (discussing cost-benefit analysis in environmental regulation); Tom R. Tyler & John M. Darley, *Is Justice Just Us?*, 28 HOFSTRA L. REV. 707 (2000) (suggesting that laws describe moral behavior).

[2] Of course, if standards are set with the express intention of serving as the functional equivalent of a ban on the regulated activity, different considerations apply. Even in these circumstances, practicability considerations are important to assure orderly shutdown of operations, management of contamination, and displacement impacts. For an example of a study that assesses an outright ban, analyzes compliance rates and enforcement costs resulting from the ban, and suggests ways to improve the cost effectiveness of traditional enforcement, see K. Kuperan & Jon G. Suinten, *Blue Water Crime: Deterrence, Legitimacy, and Compliance in Fisheries*, 32 LAW & SOC'Y REV. 309 (1998) (looking at the behavior of Malaysian fisherman who face a ban against fishing in a zone along a coast and suggesting ways to increase viability of regulations).

[3] For a somewhat contrary view, see a discussion of the value of "partial compliance" with an ambitious goal in the international context, Ronald Mitchell, *Compliance Theory: An Overview, in* IMPROVING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL LAW 3, 24-26 (James Cam et al, ed, 1996).

[4] Even stating that "any person" must act in a specified way raises the question of what constitutes a person—does it include corporations or governmental entities? If the obligation is intended to apply to certain businesses, is the obligation imposed on the owners of the business, the owners and (separately) the operators, etc.? This can matter a great deal if owners are absentee and outside the jurisdiction, for example.

[5] For an example of the many disputes that arise under the United States' Resource Conservation and Recovery Act's ("RCRA") definition of "hazardous waste," see United States v. Dean, 969 F.2d 187 (6th Cir. 1992) (holding that chromic acid was considered "hazardous waste").

[6] A numeric standard may be intended to be measured for continuous compliance, for a twenty-four hour average, for a weekly or monthly maximum, or for any of a number of other possible time frames.

[7] If the drafters intend to provide for exceptions or waivers of the requirement under certain circumstances, enforceability is enhanced if such circumstances are narrowly and precisely defined. If those who seek to claim an exception are required to demonstrate eligibility, this can also minimize the difficulties inherent in exception provisions. *Contra* Cass R. Sunstein, *Problems with Rules*, 83 CAL. L. REV. 953 (1995).

[8] For an analysis of the role of ambiguity and inconsistency of requirements among the "root causes" of non-compliance, see ENVTL. PROT. AGENCY & CHEM. MFRS ASS'N, ROOT CAUSE ANALYSIS PILOT PRODUCT (1999). *See also* Steven A. Herman, *Root Cause Analysis Helps Determine Underlying Causes of Noncompliance*, Aug. 1999: v. 14, no. 7 Nat'l Assoc. of Attorneys General: Nat'l Envtl Enf. J. 18 (August 1999).

[9] Because the regulated entities may not be fully cooperative and helpful in this enterprise, efforts should also be made to identify neutral but expert help from sources like academics or independent research centers.

[10] *See* Emily Barker, *DuPont Tries to Clean up its Act*, The Am. Lawyer, Oct. 1991, at 40; Marianne Lavelle, *Companies Staff Up and Struggle to Stay Ahead of the Green Machine*, 15 NAT'L L.J. 52 (August 30, 1993) (discussing attorneys' roles in assisting companies attempting to comply with environmental regulations and highlighting the companies' difficulties meeting these requirements); David L. Markell, *The Role of Deterrence-Based Enforcement in a 'Reinvented' State/Federal Relationship: The Divide Between Theory and Reality,* 24 HARV. ENVTL. L. REV. 1, 25-26 (2000) [hereinafter *The Role of Deterrence*] (discussing EPA's efforts to launch compliance assistance programs); Joel A. Mintz, *Scrutinizing Environmental Enforcement: A Comment on a Recent Discussion at the AALS,* 30 ENV. L. REP. 10639 (August 2000) (saying that under a cooperation-based system, regulatory agencies give advice and consultation to businesses to help them understand the rules and come into compliance).

[11] *See* Clifford D. Rechtschaffen, *Deterrence vs. Cooperation and the Evolving Theory of Environmental Enforcement*, 71 S. CAL. L. REV. 1181, 1201-02 (1998) [hereinafter *Deterrence vs. Cooperation*] (arguing that one source of the complexity surrounding environmental laws is that it is difficult for the regulated to locate the law when the regulations are densely worded and made through informal agency documents). For a discussion of the importance of clear legislative history, see Alice Boler Ackerman, *Drafting Legislative Intent Statements*, The Legislative Lawyer, Vol. 11, No. 1 (Winter 1997), *available at* http://www.ncsl.org/programs/legman/LegalSrv/Vol11No1.htm (last visited April 9, 2004).

[12] Failure to act in accordance with recommendations might give rise to tort liability under some negligence theories, might influence labor negotiations or might otherwise influence the behavior of the regulated entity. *But see Deterrence v. Cooperation, supra* note 11 at 1197-98 (1998) (arguing that because of the difficulty in plaintiffs' succeeding in lawsuits alleging environmental harm from routine and continuous discharges, corporations understand the very small likelihood of their being sued, and instead focus on avoiding accidents, which remain the primary source of environmental tort liability. The author suggests that regulatory requirements such as training, record-keeping, or reporting obligations do not relate to direct environmental harm so that there is almost no likelihood of tort liability for noncompliance).

[13] Examples of United States statutes creating clear legal obligations include Toxic Substances Control Act, 15 U.S.C. § 2603(b)(2)(B) (mandating "[t]he following person shall be required to conduct tests and submit data"); National Environmental Policy Act, 42 U.S.C. § 4332 (requiring Federal Agencies to cooperate "to the fullest extent possible"); Clean Water Act, 33 U.S.C. § 1341 (requiring "any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in discharge into the navigable waters shall provide the licensing or permitting agency a certification from the State"). *See also* Jack Stark, *Shall or Must?*, Vol. XVI., Issue 3 LEGIS. LAW. 5, *available at* http://www.ncsl.org/programs/legman/legalsrv/vol17no1.pdf (arguing that, despite contentions of plain language advocates that the word "must" is a superior choice, the word "shall" retains utility in statutory drafting).

[14] See discussion *infra* at Section "Sanction Authorities."

[15] *Compare* Safe Drinking Water Act ("SDWA"), 42 U.S.C. § 300g-3 (g)(3)(A) (stating "any person who violates, or fails or refuses to comply with, an order under this subchapter shall be liable . . .") *with* Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), 7 U.S.C. § 136j (specifying certain enumerated unlawful acts). *See also* Toxic Substances Control Act ("TSCA"), 15 U.S.C. § 2614; Endangered Species Act ("ESA"), 16 U.S.C. § 1538 (specifying prohibited acts).

[16] Even in regulatory schemes that place the burden on the regulated entity to demonstrate compliance, such provisions would prove unworkable in the absence of the tools and methods to establish the necessary facts to support such a demonstration.

[17] Required compliance measurement can be general or very specific, as when particular tests of a particular design are specified. *See, e.g.,* 40 C.F.R. 122.48 (general monitoring and reporting requirements for effluent permits under the U.S. Clean Water Act); 40 C.F.R. Part 136 (specific guidelines establishing test protocols for such monitoring); 40 C.F.R. 60.46

(specific compliance demonstrations for new source performance standards under the Clean Air Act).

[18] For a discussion of the use of information gathering provisions of the United States Clear Air Act, *see* Arnold W. Reitze, Jr. & Steven D. Schell, *Self-Monitoring and Self-Reporting of Routine Air Pollution Releases*, 24 COLUM. J. ENVTL. L. 63 (1999). Enforcement officials can require specific compliance demonstrations pursuant to Clean Air Act § 114, 42 U.S.C. § 7414, Clean Water Act § 308, 33 U.S.C. § 1318, and similar provisions in other statutes.

[19] In U.S. law, such "generic" provisions range from Constitutional constraints on unlawful searches and seizures or mandatory self-incrimination all the way to Justice Department regulations and policies relating to exercises of prosecutorial discretion or to compliance with professional attorney ethics standards. *See* U.S. CONST. amend. IV; U.S. CONST. amend V. *See also* Memorandum from Larry D. Thompson, Assistant Attorney General, to Heads of Department Components, United States Attorneys, January 20, 2003, *available at* www.usdoj.gov/usao/eousa/foia_reading_room/usam/title9/crm00161.htm (last visited April 9, 2004) (memorandum designed to include "a set of principles to guide Department prosecutors as they make the decision whether to seek charges against a business organization"). *See also* The McDade Amendment, 28 U.S.C. 530B (providing that the U.S. government attorneys are subject to state requirements and federal court rules governing attorney conduct "to the same extent and in the same manner as other attorneys in that State"); 28 C.F.R. Pt. 77 (implementing regulations for McDade Amendment).

[20] For the most part, this article presumes that the enforcing authority is governmental in nature. Citizens suits and certain quasi-enforcement roles for lenders or consumers are discussed briefly in section "Citizen Suits and Other Enforcement Approaches," *infra*.

[21] For a discussion of the range of enforcement approaches *see* Jon D. Silberman, *Does Deterrence Work? Evidence and Experience Say Yes, But We Need to Understand How and Why*, 30 ENV. L. REP. 10523 (July, 2000). *See also Deterrence vs. Cooperation*, *supra* note 11 at 1181; *The Role of Deterrence*, *supra* note 10 at 1; Robert A. Kagan & John T. Scholz, *The "Criminology of the Corporation" and Regulatory Enforcement Strategies*, *in* ENFORCING REGULATION 67 (Keith Hawkins et al. eds.).

[22] *See* Wesley A. Magat & W. Kip Vicusi, *Effectiveness of the EPA's Regulatory Enforcement: The Case of Industrial Effluent Standards*, 33 J.L. & ECON. 331 (1990) (detailing significant effects that EPA's actions to enforce water pollution regulations have on compliance rates and pollution levels). *See also* Weley A. Magat & W. Kip Viscusi, *The Effectiveness of EPA's Regulatory Enforcement: The Case of Industrial Effluent Standards*, Study Conducted by the Center for the Study of Business Regulation, (1987) [hereinafter *EPA's Regulatory Enforcement*] (study evaluating the relationship between EPA enforcement activity and both pollution levels and compliance rates, using results from monitoring reports required by the Clear Water Act).

[23] One example of reporting of emissions and discharges is the Toxic Release Inventory, which is required under Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986, 42 U.S.C. §11022. *See also* Arnold W. Reitze, Jr. & Steven D. Schell, *Self-Monitoring and Self-Reporting of Routine Air Pollution Releases*, 24 Colum. J. Envtl. L. 63 (1999).

[24] Decisions will have to determine the frequency and scale of monitoring, whether all, a portion, or only problematic results will be reportable to government, whether and for how long records must be maintained. *See The Role of Deterrence, supra* note 10 at 1; UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, PRINCIPLES OF ENVIRONMENTAL ENFORCEMENT, Chapter 6, *available at* www.inece.org/enforcementprinciples.html [hereinafter PRINCIPLES] (last visited April 9, 2004).

[25] Self-monitoring can involve the perception or the reality that the regulated industry may have a conflict of interest about the results of such monitoring, especially when it could have the effect of proving violations of law or even the need for further regulation. Reliability and credibility can be enhanced through mandatory certification of results by responsible company officials, required use of government, independent or specified laboratories, mandating use of good laboratory practices or other quality control techniques, and similar mechanisms. *See EPA's Regulatory Enforcement, supra* note 22. *See generally* PRINCIPLES, *supra* note 24.

[26] Provisions for significant consequences for any falsification or hiding of monitoring results can strengthen the governmental hand, as can requirements for some kind of independent oversight and observation by third parties. *See* PRINCIPLES, *supra* note 24.

[27] While a broad range of public policy considerations inform decisions about the extent and nature of public release of monitoring results, one factor is the extent to which such information can supplement governmental oversight of the activity and empower citizen involvement in compliance and enforcement. For discussion of citizens' suits see *infra* Section II.B.4. *See also* Sidney M. Wolf, *Fear and Loathing About the Public Right to Know: The Surprising Success of the Emergency Planning and Community Right To Know Act*, 11 J. LAND USE & ENVTL. L. 217 (1996). For a discussion of "spotlighting" as a regulatory strategy, see Cass Sunstein, *Informational Regulation and Informational Standing: Akins and Beyond,* 147 U.PA L.REV. 613 (1999). *See also* Echeverria & Kaplan, *Passions Procedural 'Reform': In Defense of Environmental Right to Know*, GEO. ENVTL L. & POL'Y INST. (2002). For a discussion about corporate disclosure and the investor or stockholder's ability to find information, see John W. Bagby et al., *How Green Was My Balance Sheet? Corporate Liability and Environmental Disclosure*, 14 VA. ENVTL. L.J. 225 (1995).

[28] Different considerations regarding fairness may be influenced by whether the regulated activity involves entirely commercial enterprises or whether individual or private citizens are regulated. For commercial settings, it may be optimal to authorize access to facilities where regulated activities are conducted while in the case of homes and similar situations, entry might reasonably be restricted to situations where there is probable cause to believe that violations are occurring.

[29] Of course, the system of issuing such credentials must itself have integrity and safeguards. An additional means to build confidence in government inspectors and investigators is through general, often government wide laws and approaches to promote professionalism and ethics, to prevent conflicts of interest, and to detect and punish bribery and other abuses.

[30] There can be important synergies between, for example, customs and environmental officials, occupational safety and environmental investigators, etc. However, institutional and structural barriers often impede cross-fertilization. *See* James V. DeLong, *New Wine for a New Bottle,* 72 VA. L. REV. 399, 408-09 (1986) (providing the example that the proposed regulation of exposure to vinyl chloride in the 1970s would have required the coordination among five agencies under fifteen statutes). Legislative directives, or even encouragement, can help overcome such barriers. See, for example, requirements in FIFRA that EPA consult with, variously, the Department of Agriculture and the Department of Health and Human Services. 7 U.S.C. § 136d(b).

[31] For example, import licenses could require reporting to both customs and environmental officials.

[32] *Compare* Clean Air Act, 42 U.S.C. § 7413(a)(4) (general provisions for administrative compliance orders) *with* § 7413(b) (civil judicial enforcement, including permanent or temporary injunctions). Similarly, *compare* Clean Water Act, 33 U.S.C. § 1318(a)(3) (authorizing compliance orders) *with* § 1318(b) (civil actions, including permanent or temporary injunctions).

[33] *See* United States v. South Florida Water Management District, 847 F.Supp. 1567, 1573-74 (S.D. Fla. 1992) (discussing the court's authority to enter a consent decree).

[34] The emphasis in this section has been upon the role that lawmakers can play in providing effective legislative mechanisms for the use of compliance orders. Obviously, the preparation of compliance orders is, itself, a form of law drafting and is subject to many of the same considerations of language, clarity and related factors which apply to the initial drafting of the applicable requirements. This aspect of lawmaking is discussed at

greater length, *infra* at section III.A., in connection with the role of judges as law-makers, and particularly their role in crafting effective injunctive relief. The principles applicable to judges in that context are equally applicable to the crafters of administrative orders.

35 *See* James T. Carney, *Rule 65 and Judicial Abuse of Power: A Modest Proposal for Reform,* 19 AM. J. TRIAL ADVOC. 87, 87-92 (distinguishing between preliminary and permanent injunctions in terms of their nature, duration, purpose, and effect, particularly that preliminary injunctions lack specific time restrictions but are typically temporary, while permanent injunctions are typically indefinite). For general injunctive procedures under U.S. law, *see* FED. R. CIV. P. 65(a) (preliminary injunction); FED. R. CIV. P. 65 (injunctions); FED. R. CIV. P. 56 (summary judgment); FED. R. CIV. P. 59, 60, 62 (judgment rules).

36 Such refusals and challenges may be motivated by a simple unwillingness to comply or by a sincere belief that the order is not proper based on the facts or the law.

37 Such an approach could provide for an intermediate appeal within the administrative agency, perhaps to an administrative tribunal whose functions are separate from the enforcement arm of the agency. *See* United States Administrative Procedures Act, 5 U.S.C. § 554(d) (provision that the adjudicating agency official not be responsible to or subject to the officials engaged in enforcement functions).

38 *See* General Electric Co. v. Envtl. Protection Agency, 360 F.3d 188 (D.C. Cir. 2004) (holding that while the plain language of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) prohibits federal courts from reviewing challenges to removal or remedial actions under the statute, General Electric still can sue in federal court to challenge the constitutionality of that provision of the statute). *But see also* McClellan Ecological Seepage Situation v. Perry, 47 F.3d 325, 327 (9th Cir. 1995); Schalk v. Reilly, 900 F.2d 1091, 1094 (7th Cir. 1990); Voluntary Purchasing Groups, Inc. v. Reilly, 889 F.2d 1380, 1390 (5th Cir. 1989) for examples of courts declining to review challenges to specific EPA orders and actions under the same provisions.

39 For examples of some conditions that the federal courts may attach to probation, see 2002 Federal Sentencing Guidelines, Chapter 5-Part B-Probation, *available at* www.ussc.gov/2002guid/5b1_3.htm (last visited April 9, 2004).

40 Consider six U.S. federal environmental statutes containing emergency or imminent hazard provisions. *See* Clean Air Act, 42 U.S.C. § 7603; Comprehensive Environmental Response, Compensation and Liability Act 42 U.S.C. § 9606; Clean Water Act, 33 U.S.C. § 1364; Resource Conservation and Recovery Act, 42 U.S.C. § 6973; Safe Drinking Water Act, 42 U.S.C. § 300i; Toxic Substances Control Act, 15 U.S.C. § 2606.

41 For a discussion of deterrence theory see *Deterrence vs. Cooperation, supra* note 11 at 118 (critically examining the assumptions underlying the reform movement and suggesting that instead of discarding the current enforcement approach based on the traditional deterrence-based civil enforcement, there should be movement towards a system of environmental enforcement grounded in deterrence theory and which integrates the constructive features of a cooperative model); Jon D. Silberman, *Does Environmental Deterrence Work? Evidence and Experience Says Yes, But We Need to Understand How and Why*, 30 ENVTL.L.REP. (Envtl. L. Inst.) at 10523 (2000) (summarizing EPA's traditional deterrence-based approach to enforcement); Michael P. Vandenbergh, *Beyond Elegance: A Testable Typology of Social Norms in Corporate Environmental Compliance*, 22 STAN. ENVTL. L.J. 55, 63-7, 118-20 (2003) (discussing the standard deterrence model). For a comprehensive analysis of the literature of regulatory compliance, *see* Timothy F. Malloy, *Regulation, Compliance, and the Firm*, 76 TEMP. L. REV. 451 (2003).

42 Some U. S. environmental statutes expressly identify economic benefit derived from the violation as a factor in setting of penalties. *See, e.g.,* Clean Water Act, 33 U.S.C. § 1319(d) and (g)(3). Under EPA policies, EPA fines in civil enforcement cases have two components, (1) the violator's economic gains from non-compliance and (2) "a punitive 'gravity-based' penalty based on the seriousness of the offense." Since 1984 EPA has used the BEN computer model to calculate economic benefits. An economic benefit can occur through "delaying required pollution control measures, avoiding required pollution control expenditures, or gaining an illegal competitive advantage such as selling a product at below market prices." Environmental Protection Agency, *Calculation of Economic Benefits Obtained by Violators under Review*, *in* NEWSLETTER VOL. III #11 (November 1996) (*available at* http://yosemite.epa.gov/EE/Epalib/nwlet.nsf/0/716462cbcb29cfef8525653a00064db7?OpenDocument) (last visited April 1, 2004). For a judicial discussion of the economic benefit factor, see U.S. v. Smithfield Foods, 191 F. 3d 516, 526 (4th Cir. 1999).

43 See discussion of order authorities *supra* Section "Compliance Orders."

44 For a detailed discussion comparing administrative and judicial enforcement in the U.S. and Dutch systems see D.J. Van Zeben & M.E. Mulkey, *Choosing Among Criminal, Civil Judicial, and Administrative Enforcement Options: A Comparative Discussion of United States and Netherlands Experience*, *available at* http://www.inece.org/2ndvol1/vzeben.htm (last visited April 1, 2004) [hereinafter *Choosing*].

45 Compare the statutory penalty criteria of the U. S. Clean Water Act, which enumerates five factors plus "such other matters as justice may require," CWA 33 U.S.C. §1318(d) and the criteria of the Toxic Substances Control Act, which enumerates four factors relating to the violation and an additional four factors relating to the violator along with "such other matters as justice may require." Environmental agencies may elect to publish detailed penalty policies. For general information about the EPA's penalty policies, see EPA, CIVIL PENALTY POLICIES, *available at* http://cfpub.epa.gov/compliance/resources/policies/civil/penalty (last visited April 9, 2004). For an example of policies at the state level, see STATE OF CONNECTICUT DEPARTMENT OF ENVIRONMENTAL PROTECTION, CIVIL PENALTY POLICIES, *available at* http://dep.state.ct.us/enf/policies/civpenpol.pdf (last visited April 9, 2004). Enforcement agencies also could be legislatively required to publish more detailed penalty policies or schedules of typical penalties, and there could also be requirements for publication of all penalty cases in some systematic way.

46 *See supra* note 42 (discussing role of economic benefit in U.S. environmental penalty law and policies and the EPA computer model to calculate economic benefit). For more information on recapturing economic benefits see David B. Spence, *The Shadow of the Rational Polluter: Rethinking the Role of Rational Actor Models in Environmental Law,* 89 CAL.L.REV. 917, 937 (2001) (stating that EPA's penalty policies are intended to represent the economic benefit of noncompliance, but some courts hesitate to apply these penalty policies and "the application of civil penalty policy. . . by administrative law judges is yet more uneven").

47 Pursuant to section 4 of the Federal Civil Penalties Inflation Adjustment Act of 1990, 28 U.S.C. 2461, as amended by the Debt Collection Improvement Act of 1996, 31 U.S.C. 3701, each U.S. federal agency is required to issue regulations adjusting for inflation the maximum civil monetary penalties that can be imposed pursuant to such agency statutes. The most recent EPA regulations implementing these provisions are codified at 40 C.F.R. Parts 19 and 27. *See also* Clean Air Act, 42 U.S.C. 7651(j)(c) (2000) (requiring annual adjustments for inflation of penalties in that section).

48 If crimes are categorized, as, e.g . felony and misdemeanor, then it may be necessary to state which categories are applicable to which violations. With the increasing complexity of both environmental and criminal laws, more specification by lawmakers becomes necessary. *See generally* Martin Harrell, *Why Eight Plus Six Means Prison for Environmental Criminals*, 14 TUL. ENVTL. L.J. 197, n.1, n.35 (2000) (noting that the U. S. Sentencing Guidelines' offense calculation is similar for environmental felonies and misdemeanors, only differing on the grounds that a misdemeanor conviction would carry a maximum penalty of one year prison term while a felony conviction would carry a prison term greater than one year).

49 *E.g.,* Clear Air Act, 42 U.S.C. § 7413(b) (civil penalties) and (c) (criminal penalties); Clear Water Act, 33 U.S.C. § 1319(d) (civil penalties) and (c) (criminal penalties). For a broad range of information about environmental crimes in U.S. environmental law, see RONALD J. BURNS &

MICHAEL J. LYNCH, ENVIRONMENTAL CRIME: A SOURCEBOOK (LFB Scholarly Publishing 2004).

50 See *Choosing, supra* note 44 (noting that Dutch civil courts were available for use by the government enforcement authorities only when the government can identify a cause of action based on private law, such as tort or contract. Therefore, the primary monetary sanction available in civil courts was the recovery of costs expended by the government in response to a negligent or otherwise tortuous act by a polluter). For a discussion of the dominant role played by criminal environmental enforcement in the Netherlands, *see* Gisele Van Zeben, *Enforcement of Environmental Legislation Under Criminal Law by the Public Prosecutions Department in the Netherlands*, *available at* www.inece.org/3rdvol1/pdf/zeben.pdf (last visited April 9, 2004).

51 Of course, in legal systems that include the ultimate sanction of loss of life (capital punishment), certain environmental violations of the most egregious and deliberate sort, with extreme results, might be subject to this ultimate sanction.

52 *See* Memorandum from Larry D. Thompson, Assistant Attorney General, to Heads of Department Components, United States Attorneys, January 20, 2003, *available at* www.usdoj.gov/usao/eousa/foia_reading_room/usam/title9/crm00161.htm (last visited April 9, 2004) (describing principles of federal prosecution of business organizations).

53 The United States Sentencing Commission publishes a comprehensive Guidelines Manual with detailed approaches to sentencing applicable in the federal courts. UNITED STATES SENTENCING COMMISSION, GUIDELINES MANUAL, (Nov. 2003). Part Q of the MANUAL addresses offenses involving the environment. For an example of U. S. State-level sentencing guidelines, see MASSACHUSETTS SENTENCING COMMISSION, MASSACHUSETTS SENTENCING GUIDELINES (1998) *available at* www.mass.gov/courts/formsandguidelines/sentencing/intro.html (last visited April 9, 2004).

54 *See* U.S. Environmental Protection Agency, Suspension and Disbarment, *available at* www.epa.gov/ogd/grants/debarment.htm (last visited April 9, 2004) (providing that "[s]uspension and Debarment actions prevent companies and individuals from participating in government contracts, subcontracts, loans, grants and other assistance programs"). *See* 40 C.F.R. Pt. 32 for a regulation on statutory debarment under the Clean Water Act and Clean Air Act.

55 *See Choosing*, *supra* note 44 (noting that Dutch administrative law had no mechanism for imposing penalty sanctions for past environmental violations, but that administrative tools such as license revocation and facility shutdown can provide significant sanctions for past violations).

56 The U.S. pesticides law, for example, has provisions for the termination of licenses to sell or distribute pesticides. *See* FIFRA, 7 U.S.C. §136d (providing for orders to Stop Sale and Use of pesticides); FIFRA, §136k(a) (providing for seizure and confiscation of pesticides when certain conditions are met) FIFRA §136k(b). The Toxic Substances Control Act provides a mechanism for the seizure and condemnation of chemical substances or products manufactured, processed or sold in violation of the Act. TSCA, 15 U.S.C. § 2616(b).

57 *See supra*, notes 22 and 23.

58 For a reasonably comprehensive discussion of the common law in contemporary U.S. environmental law, see PLATER ET. AL., ENVIRONMENTAL LAW AND POLICY: NATURE, LAW AND SOCIETY, Chapter 3 (West Group Publishers, 2nd ed. 1998). For a general discussion of citizens' suits, see Katherine M. Bailey, *Citizen Participation in Environmental Enforcement in Mexico and the United States: A Comparative Study*, 16 GEO. INT'L ENVTL L. REV. 323 (2004).

59 Examples of citizen suit provisions can be found in the U.S. Clean Water Act, 33 U.S.C. § 1365; Clean Air Act, 42 U.S.C. § 7604; Toxic Substances Control Act, 15 U.S.C. § 2619; Endangered Species Act, 16 U.S.C. § 1540(g); Resource Conservation Recovery Act, 42 U.S.C. § 6972(a). *See* Eileen. Gauna, *Federal Environmental Citizen Provisions: Obstacles and Incentives on the Road to Environmental Justice*, 22 ECOLOGY L.Q. 1 (1995). *See also* Gwaltney of Smithfield, Ltd. v. Chesapeake Bay Foundations, Inc. 484 U.S. 49 (1987).

60 For example, the U.S. Clear Water Act citizens' suits may be brought by "any citizen on his own behalf" and "citizen" is defined as "a person or persons having an interest which is or may be adversely affected." CWA 33 U.S.C. §1365 (a) and (g).

61 For example, U.S. Endangered Species Act citizen suits may be commenced "to enjoin any person . . . alleged to be in violation" ESA, 16 U.S.C. § 1540(g) while the Clean Air Act provision provides that in citizens' suits, courts have jurisdiction to "enforce such a . . . standard . . . and to apply any appropriate civil penalties." CAA, 42 U.S.C. § 7604 (a).

62 Most of the U.S. environmental statutes' citizen suits provisions authorize suits against any person alleged to have violated provisions of the Act and against the implementing Agency based on an allegation of failure to perform non-discretionary duties. See, for example, CAA, 42 U.S.C. §7604(a); RCRA, 42 U.S.C. § 6972(a).

63 Citizens' suits provisions in U.S. environmental law typically provide for the award of "costs of litigation (including reasonable attorney and expert witness fees)" RCRA , 42 U.S.C. §6972(e) or "costs of suit and reasonable fees for attorneys and expert witnesses" TSCA, 15 U.S.C. § 2619(c)(2). For an example of a more "generic" approach to the award of attorneys fees, see the Equal Access to Justice Act ("EAJA"), 5 U.S.C. § 504 (1981), which allows prevailing parties in a wide range of actions to recover attorney fees and costs in litigation against the federal government. For an overview of EAJA see generally, Robert Hogfoss, *The Equal Access to Justice Act and its Effect on Environmental Litigation*, 15 ENVTL. L 533 (1985).

64 *See, e.g.,* Thomas C. Grey, *Judicial Review and Legal Pragmatism*, 38 WAKE FOREST L. REV. 473, 478 (2003) (providing a history of the debate between formalists and progressives, including such figures as Langdell, Llewellyn, Marshall, Cardozo, Holmes, Scalia, Bork and Easterbrook, among many others).

65 *See e.g.* BENJAMIN CARDOZO, THE NATURE OF THE JUDICIAL PROCESS at 16-17, 113-115, 129 (1921) (describing the duty of the judiciary to fill in legislative gaps and create a cohesive body of law); Roger Traynor, *Statutes Revolving in Common-Law Orbits*, 17 CATH. U.L. REV 401, 402 (1968) ("the hydra-headed problem is how to synchronize the unguided missiles launched by legislatures with a going system of common law").

66 Defined as "an issue that has been definitively settled by judicial decision." BLACK'S LAW DICTIONARY (7th ed. 1999).

67 Defined as "the doctrine of precedent, under which it is necessary for a court to follow earlier judicial decisions when the same points arise again in litigation." BLACK'S LAW DICTIONARY (7th ed. 1999).

68 Even though France, which operates under the code system, does not expressly allow judges to decide a case based on precedent, prior decisions are becoming more persuasive. *See* THE FRENCH CIVIL CODE ART. 5(c)(2) (French judges "are forbidden, when giving judgment in the cases which are brought before them . . . to decide a case by holding it was governed by a previous decision"). *But see* John Bell, *Comparing Precedent*, 82 CORNELL L. REV. 1243, 1248 (1997) (book review)[hereinafter *Comparing Precedent*] (noting that although precedent is not considered binding in civil law countries, it is still very important in France, where lawyers extensively discuss cases in their briefs).

69 *See* James L. Oaks, *The Judicial Role in Environmental Law*, 52 NYU L. REV. 498, 512 (1977)[hereinafter *The Judicial Role*] (explaining that Congress has given the courts a very significant role in environmental law, and arguing that the court must recognize this duty and act upon it).

70 *See* Monsanto Co. v. Acting Adm'r, U.S. E.P.A., 564 F.Supp 552 (D.C. Mo. 1983), (*reversed by* Ruckelshaus v. Monsanto Co., 104 S. Ct. 2862 (1984)) (district court holding the consideration of data submitted by producer in connection with application for pesticide registration pursuant to Federal Insecticide, Fungicide, and Rodenticide Act caused unconstitutional taking of producer's property; Supreme Court rejected the "takings claim").

71 This is a basic element of U.S. law. *See* 5 U.S.C. 702 (providing a person "adversely affected or aggrieved by agency action . . . is entitled to

judicial review thereof"). *See also* Chevron, U.S.A. Inc. v. NRDC, 467 U.S. 837 (1984) (holding that a court must uphold any reasonable administrative interpretation of a statute unless that is clearly contrary to legislative text or intent).

72 *See*, *e.g.,* Clean Water Act, 33 U.S.C. § 1369(b)(1)(F); Resource Conservation and Recovery Act, 42 U.S.C. § 6976(b)§ 7006(b).

73 *See e.g. The Judicial Role*, *supra* note 69 at 514 (discussing the great service that courts provide to environmental law by clarifying the often hyper-scientific language that agencies use which "makes environmental decisions more comprehensible to those who must ultimately pay the costs of implementation").

74 While in the short term, judicial identification of limitations to the enforceability of legal requirements may appear to limit or constrain enforcement, it can have the effect of motivating law drafters to establish clearer and more enforceable requirements.

75 *See* John T. Scholz, *Cooperation, Deterrence, and the Ecology of Regulatory Enforcement*, 18 Law & Soc'y Rev. 179 (1984) [hereinafter *Cooperation*] (discussing the link between the willingness to cooperate by regulated firms and their confidence that the system will address other intransigents).

76 Obviously, other elements of the society, including those engaged in activities that may contribute to environmental degradation, must also operate in a trustworthy and upright manner if environmental protection programs are to succeed. The prospect for such behavior, however, is inextricably tied to the quality and ethic of the society at large and of the governments who wield its collective power.

77 *See* Baker v. Carr, 369 U.S. 186, 267 (1962) (Frankfurter, J. dissenting) (where Justice Frankfurter stated "The Court's authority- possessed of neither the purse nor the sword- ultimately rests on sustained public confidence in its moral sanction."); Mistretta v. U.S., 488 U.S. 361, 407 (1989) (Justice Blackmun reasoned "the legitimacy of the Judicial Branch ultimately depends on its reputation for impartiality and nonpartisanship"); Christopher E. Smith, Courts, Politics and the Judicial Process at 5 (Nelson-Hall Inc, 1997) (discussing the importance of courts being trusted and respected by the citizenry).

78 *See e.g.* Portland Cement Association v. Ruckelshaus, 486 F.2d 375 (D.C. Cir 1973) (court had to balance competing interests of industry groups (who thought that new standards were too stringent) and environmental groups (who thought the standards not stringent enough)); Ethyl Corp. v. EPA, 541 F.2d 1 (D.C. Cir. 1976) (industry in opposition of regulation of lead contents in gasoline, while the environmentalists were in support of regulation).

79 *See* Mapp v. Ohio, 367 U.S. 643 (1961) (holding that evidence obtained by searches and seizures in violation of the Constitution is constitutionally inadmissible in state courts).

80 In the U.S. system, constitutional torts are actions brought against governments and their officials and employees for violation of federal constitutional rights. Tens of thousands of these actions are filed each year in federal court. Almost all are brought against state and local governments and their officials and employees pursuant to 42 U.S.C. § 1983. A few such cases are brought against federal officials, relying on the decision in Bivens v. Six Unknown Named Agents, 403 U.S. 388 (1971). For a thorough treatment of constitutional torts, see Sheldon Nahmod et al., Constitutional Torts (Anderson Pub. Co. 1995).

81 For a discussion of constitutional torts, see *supra* note 80.

83 *See Cooperation*, *supra* note 75.

84 *See The Judicial Role*, *supra* note 769 at 507 (explaining that there is often an additional sense of urgency in environmental law, and for that reason it behooves the courts to handle cases quickly).

85 For an understanding of the legal framework for reporting of U.S. judicial decisions*, see* Banks v. Manchester, 128 U.S. 244, 253-54 (1888) (Supreme Court ruled that judicial decisions were the property of the people and therefore could not be copyrighted); Marci A Hamilton & Clemens G. Kohnen, *The Jurisprudence of Information Flow: How the Constitution Constructs the Pathways of Information*, 25 Cardozo L. Rev. 267, 289 (2003) (providing historical perspective on the law of reporting court decisions).

86 For an example of such a study, see William P. Adams & Mark Motivans, *Using Data from the Federal Justice Statistics Program*, 16 Fed. Sent. R. 18, 18 (2003). This article discusses the Federal Justice Statistics Program, which obtains data from numerous sources, and then compiles the data to assess trends and provide comprehensive information about the federal criminal justice program *Id.* Among the groups that provides these data is the Administrative Office of the U.S. Courts. *Id.*

87 *See Comparing Precedent*, *supra* note 68 at 1248 (noting that although precedent is not considered binding in civil law countries, it is still very important in Germany (where almost every decision makes reference to precedent) and France (where lawyers discuss cases extensively in their briefs)).

88 *See* Otto J. Hetzel, *Instilling Legislative Interpretation Skills in the Classroom and the Courtroom*, 48 U. Pitt. L. Rev. 663 n.76 (1987) (suggesting that lack of law school instruction in statutory drafting stems from a lack of faculty expertise in that subject); Lance W. Rook, *Laying Down the Law: Canons for Drafting Complex Litigation*, 72 Or. L. Rev. 663, n.11 (1993) (discussing link between unclear drafting and lack of drafting instruction in law schools); Robert F. Williams, *Statutory Law in Legal Education: Still Second Class After All These* Years, 35 Mercer L. Rev. 803 (1984) (describing the overall lack of statutory drafting classes in law schools around the United States). The Georgetown University Law School, for example, does offer such a class, entitled Legislative Drafting Seminar. Information about this class *available at* www.law.georgetown.edu/curriculum/tab_courses.cfm?status=Course&CourseNumber=312 (last visited April 9, 2004). The George Washington Law School also offers such a class, entitled Legislative Analysis and Drafting, *available at* http://www.law.gwu.edu/acad/400426.asp (last visited April 4, 2004). One suspects their location in Washington, D.C. to play a role in this curriculum. Despite the rich mix of course offerings at U.S. law schools, this kind of course title rarely appears.

89 For examples of international legislative drafting aids, see International Legislative Drafting Institute, *available at* www.law.tulane.edu/cdo/index.cfm?d=inst&main=ildi.htm (last visited April 9, 2004) (two week summer program that focuses on legislative drafting that has graduated drafting personnel from 75 jurisdictions worldwide); The World Bank Group, Drafting Techniques, *available at* www4.worldbank.org/legal/legalr/legalreform_dt_ul.html (last visited April 9, 2004) (providing links to different drafting aids, including online drafting resources, drafting references, and information about drafting legislature in countries such as Mongolia, South Africa, Sweden, China, and more); Online Drafting Manuals and Aids, *available at* www.ili.org/ld/manuals.htm (last visited April 9, 2004) (providing legislative drafting manuals for Australia, China, India, the UK, and different jurisdictions within the United States).

90 *See* The World Bank Group, Legal and Judicial Reform, *available at* www4.worldbank.org/legal/leglr/judicialreform_jt.html (last visited April 9, 2004) (listing 13 judicial training institutions in the United States). For a specific example, *see* University of Georgia, Institute of Continuing Judicial Education, *available at* www.uga.edu/icje/index.htm (last visited April 9, 2004) (providing an overview of this specific program).

91 *See, e.g.,* European Judicial Training Network, *available at* www.ejtn.net/www/en/html/index.htm (last visited April 9, 2004) (describing training and opportunities to network for judges in the European Union); The World Bank Group, Legal and Judicial Reform, *available at* www4.worldbank.org/legal/leglr/judicialreform_jt.html (last visited April 9, 2004) (listing over 80 judicial training institutions in 50 countries); Linn Hammergren, *Judicial Training and Judicial Reform*, *available at* http://www.dec.org/pdf_docs/PNACD021.pdf (last visited April 9, 2004) (providing summary of lessons learned by U.S. Agency for International Development while implementing judicial reform projects in Latin America).

92 There has been a concerted effort to organize structures through which judges can network, and learn about, international issues in environmental

law. These groups include The European Training Network ("ETJN") (homepage at www.etjn.net); The United Nations Environmental Programme ("UNEP"), which has held symposia for judges about the role of law in sustainable development (homepage at www.unep.org, last visited April 9, 2004); and the International Network for Environmental Compliance and Enforcement ("INECE"), which has held meetings for judges world wide (homepage at www.inece.org, last visited April 9, 2004).

93 *See* Andrew Allan, *A Comparison Between the Water Law Reforms in South Africa and Scotland: Can a Generic National Water Law Model be Developed from These Examples?*, 43 NAT. RESOURCES J. 419, 484 (2003) (explaining the South Australia environmental court, which can hear claims on all environmental matters); Bret C. Birdsong, *Adjudicating Sustainability: New Zealand's Environment Court*, 29 ECOLOGY L.Q. 1 (detailing the specialized, expert court that focuses entirely on resolving environmental issues in New Zealand); Sean D. Murphy, *Does the World Need a New International Environmental Court?*, 32 GEO. WASH. J. INT'L L. & ECON. 333, 333 (2000) (discussing proposals for an international environmental court). Within the United States, at the local level, some counties have set up specialized environmental courts. *See Westchester Starts Environmental Court*, 3/16/2001 N.Y.L.J. 4, (col. 4) (detailing the implementation of a specialized court in Westchester, NY, staffed with experts, that deals solely with civil environmental cases); Larry E. Potter, *The Environmental Court of Memphis, Shelby County, Tennessee: The Past, the Present and the Future*, 29 GA. L. REV. 313, 316 (1995) (describing the specialized environmental court in Memphis).

94 *See* RICHARD A. POSNER, THE FEDERAL COURTS: CHALLENGE AND REFORM (1996) (expressing reservations about specialization in courts); Leroy L. Kondo, *Untangling the Tangled Web: Federal Court Reform Through Specialization for Internet Law and Other High Technology Cases*, L. Tech. J. 1, *available at* www.lawtechjournal.com/articles/2002/01_020309_kondo.pdf (last visited April 9, 2004) (advocating increased specialization of United States federal courts to more effectively deal with technological and intellectual property rights triggered by the internet) David B. Rottman, *Does Effective Therapeutic Jurisprudence Require Specialized Courts (and Do Specialized Courts Imply Specialist Judges)?*, COURT REVIEW 22 (Spring 2000) (discussing in detail the pros and cons of specialized courts).

95 *See The Judicial Role*, *supra* note 69 at 512-13 (describing the role of generalist United States federal judges in adjudicating environmental issues).

96 For information about the international environmental networks of judges, *see supra* note 92.

97 For an overview of the concept of the Real New World Order, as espoused by Anne-Marie Slaughter, *see* Anne-Marie Slaughter, *Global Government Networks, Global Information Agencies, and Disaggregated Democracy*, 24 MICH. J. INT'L L, 1041 [hereinafter *Global Government*] (2003); Anne-Marie Slaughter, *A Liberal Theory of International Law*, 94 AM. SOC'Y INT'L L. PROC. 240 (2000); Anne-Marie Slaughter, *The Real New World Order*, FOREIGN AFF., Sept.-Oct. 1997, 183. These papers detail the growth of international networks of government institutions that cover complete disciplines, such as economics or law.

98 Examples of such networks include The Basel Committee on Banking Supervision, The International Organization of Securities Commissioners, The International Association of Insurance Supervisors, and the Financial Stability Forum. *See Global Government*, *supra* note 97 at 1046-47.

99 *See* Harold Hongju Koh, *Transnational Legal Process*, 75 NEB. L. REV. 181, 203 (1996) (describing the application of the "Real New World Order" to international law and networks). *See also supra* note 93 for some specific international legal organizations. Another example is the International Association of Lesbian & Gay Judges, homepage *available at* http://home.att.net/~ialgi/ialgjbody.html (last visited April 2, 2004).

100 *See* David M. Dreisen, *Thirty Years of International Environmental Law: A Retrospective and Plea for Reinvigoration*, 30 SYRACUSE J. INT'L & COM. 353, 363 (2003) (describing steps taken at Johannesburg conference); for copies of documents produced at the Johannesburg Summit, *see* Johannesburg Summit, *available at* http://www.johannesburgsummit.org/html/documents/documents.html (last visited April 9, 2004).

101 There have been many such meetings, including: Judicial Symposium on Environmental Law, Policy and Access to Justice- Jinja, Uganda (2001) (www.eli.org/research/education.htm); First Conference on the Role of the Judiciary in the Development of Environmental Law in the Arab Region-Kuwait (2002) (http://inece.org/newsletter/8/enforcement_judges.html); Judges Ad Hoc Meeting- Nairobi, Kenya (2003) (www.unep.org/dpdl/symposium/); China (2002) (http://english.peopledaily.com.cn/200208/19/eng20020819_101700.shtml); Adelaide House (2002) (http://www.iucn.org/themes/law/pdfdocuments/London%20Bridge%20Statement.pdf).

102 INECE's website explains "INECE is a network of government and non-government enforcement and compliance practitioners from over 100 countries. INECE's goals are: raising awareness to compliance and enforcement; developing networks for enforcement cooperation; and strengthening capacity to implement and enforce environmental requirements." http://www.inece.org/. To that end, INECE holds meetings and workshops, creates networks, and drafts rules and papers.

103 *See* Janet Koven Levit, *Going Public with Transnational Law: The 2002-2003 Term of the Supreme Court*, 39 TULSA L. REV. 155 (discussing the debate about the role of international law authority in Supreme Court cases). *See also* Anne Gearan, *Foreign Rulings Not Relevant to High Court, Scalia Says*, WASH. POST, April 3, 2004, at A7.

104 *See* Penny J. White, *Judging Judges: Securing Judicial Independence by Use of Judicial Performance Evaluations*, 29 FORDHAM URB. L.J. 1053, 1064-68 (2002) (describing the various judicial evaluation indices, including bar and media polls, state evaluation systems, and the ABA Guidelines for the Evaluation of Judicial Performance); James Andrew Wynn, Jr., *Judging the Judges*, 86 MARQ. L. REV. 753, 769 (2003) (describing state (Alaska, Colorado, Utah and Arizona) evaluation systems that use the opinions of litigants, lawyers, police officers, jurors and court personnel to measure each judge's ability in areas such as "integrity, impartiality, legal knowledge, and administrative skills"). There is also a wealth of law review literature that assesses specific courts based on various factors. *See e.g.* Laura Krugman Ray, *Judging the Justices*, 76 TEMP. L.REV. 209, 209 (assessing the Rehnquist Court based on factors such as quality of written opinions, ability to produce coherent jurisprudence and overall deportment). For a collection of articles evaluating the topic of judicial independence and accountability, see 61-Sum LAW & CONTEMP. PROBS. 1 (1998) (an issue composed entirely of articles addressing this topic).

105 *See, e.g.,* Daniel A. Farber, *Is the Supreme Court Irrelevant?*, 81 MINN. L. REV. 547, 547 (1997) (positing that the United States Supreme Court has shied away from deciding important environmental issues and as a whole has contributed only minimally to the discipline).

The INECE Indicators Project:

Improving Environmental Compliance and Enforcement through Performance Measurement

by Kenneth J. Markowitz and Krzysztof Michalak†*

Introduction

For many years, policy makers and analysts have used environmental indicators to assess and report on pressures and the state of the environment. However, indicators of policy responses to environmental problems, and in particular those related to enforcement and non-compliance actions, have not been well developed. Responding to this need, the International Network for Environmental Compliance and Enforcement ("INECE")[1] launched a project to develop Environmental Compliance and Enforcement ("ECE") Indicators at the World Summit on Sustainable Development ("WSSD") in 2002.

The ECE Indicators will be used to evaluate capabilities and effectiveness of environmental compliance and enforcement programs at national, regional, and international levels. They will also serve as a tool for communicating government actions to decision-makers and the general public and helping to identify training, technology, and funding resources. While the indicators will be scaled to accommodate needs of countries at varying levels of development, their ultimate aim is to achieve sustainable development goals through improved environmental governance on national, regional and global scales. This article provides background information on the project development process, describes progress to date, and concludes with potential future steps.

Background

There is a significant body of knowledge and experience concerning environmental indicators, which may be defined as "parameters, or values derived from parameters, which point to, provide information about, or describe the state of a phenomenon/environment/area, with a significance extending beyond that directly associated with a parameter value."[2] Over the past decade, many countries have begun to adapt the concept of indicators for measuring the effectiveness and efficiency of environment enforcement programs.[3] Environmental compliance and enforcement indicators aid enforcement agencies and practitioners by:

- Assisting in monitoring enforcement operations and non-compliance responses, to help ensure that personnel and resources are being used effectively.
- Enhancing program accountability by providing information to decision-makers and the public about the number, type, and impacts of enforcement operations.
- Helping to assess the performance of environmental compliance and enforcement programs.

These indicators help program managers learn what is working and what is not working and determine what needs to be done differently to achieve desired results.[4] Such indicators have been in use in some countries but their methodological base has not been well developed and their application not widespread. Several countries have expressed an interest to carry comprehensive analysis and enlarge the scope of using ECE indicators.[5]

The INECE project responds to this need by creating a framework for identifying, designing, and using indicators that respond to the implementation, enforcement, and compliance with environmental laws in developed, transitional, and developing nations.[6] The ECE Indicators Project builds on one of INECE's major publications, the internationally cited Principles of Environmental Enforcement,[7] which emphasizes the importance of evaluating program success and establishing accountability.

Methodological Approach

The development of ECE Indicators will be guided by criteria selected based on best practices around the world. These criteria include transparency in development and in use, informative value for a range of users, comparability between developed and developing countries, relevance to current policies and country resource systems, credibility and flexibility measurements, compatibility with existing reporting requirements, technological sophistication, and measurability (cost-effectiveness).[8] This will facilitate the use of the ECE Indicators in conjunction with other existing environmental and sustainability indexes.[9]

The ECE Indicators will be designed for a wide range of applications, such as measuring compliance promotion, compliance monitoring, and non-compliance response within regional, national, and international enforcement programs. A secondary application for the ECE Indicators will provide a more global view towards gauging steps taken to achieve specific sustainable development commitments, agreed to by the governments

*Ken Markowitz is the President of Earthpace LLC, and a consultant to INECE. He would like to thank Durwood Zaelke, President and founder of the Institute for Governance and Sustainable Development and the Director of the INECE Secretariat, for his vision and guidance on the INECE Indicators project. He would also like to thank Ms. Meredith Reeves, of Earthpace LLC, for her research and assistance.

†Krzysztof Michalak is the Head of the Environmental Policies Programme in the Non-Member Countries Division of the OECD's Environment Directorate. He works with the countries of Eastern Europe and Asia on reforming environmental policies and compliance assurance systems.

Box 1: Key Principles Resulting from the INECE-OECD Workshop

- Carefully consider and reflect on the needs of different user groups.
- Meet the challenges of decision-making and program management
- Link indicators to policy targets and ensure that indicators are responsive to evolving policy objectives
- Reflect and address factors that determine compliance
- Help track progress in solving priority problems
- Recognize that indicators must be interpreted correctly and meaningfully.
- Use different categories of indicators in conjunction to maximize their value

in the Johannesburg Plan of Implementation.[10] Achieving the sustainable development goals requires good governance, the rule of law, and effective, consistently applied, enforcement. Effective enforcement calls for measuring actions taken to achieve full compliance against a baseline and reporting them openly. ECE Indicators are one method to meet this need.

Since INECE launched the Indicators Project in 2002, INECE participants have researched and surveyed existing environmental indicators programs worldwide, set up an Expert Working Group to guide the project, and presented the concept at conferences and workshops to solicit feedback and identify partnerships.

In November 2003, INECE and the Organization for Economic Co-operation and Development ("OECD") co-hosted an international workshop on the subject. The workshop was attended by representatives from developed, transitional, and developing countries; international organizations; multilateral environmental agreement secretariats; and nongovernmental organizations. Participants outlined several guiding principles for the development of ECE Indicators (see Box 1) and developed three major recommendations[11] for next steps in the ECE Indicator development process:

(1) Develop common definitions.

(2) Reach agreement on a methodology model.

(3) Articulate and apply guiding principles for using indicators to assess performance, through in-country projects.[12]

What are ECE Indicators and What Do They Measure?

Conventionally, environmental authorities measure enforcement capacities or activity levels using "input" and "output" indicators. Input-related indicators (e.g., the number of inspectors and the enforcement agency budgets) identify the allocation of financial and human resources, while output-related indicators (e.g., the number of inspections and enforcement actions) show the extent of activities carried out.13 However, as Michael Stahl of the U.S. Environmental Protection Agency ("EPA") discusses, although "these [traditional] indicators give some sense of enforcement presence, they do not provide all the types of feedback needed to effectively manage program performance, and they have several limitations."[14]

Countries are now developing "intermediate outcome" indicators and "outcome" indicators. Changes in behavior, knowledge, or conditions that result from enforcement program activities[15] are examples of "intermediate outcome" indicators. They should help to measure progress towards achieving final outcomes - the ultimate changes in the state of the environment as a result of the environmental policies and actions (see Table 1).

Table 1: Basic Types of ECE Indicators

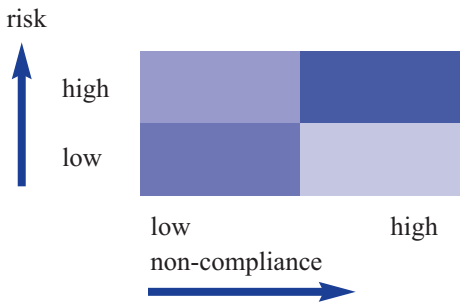
Indicato	Measures	ECE Examples
Input Indicator	Resources (human, material, financial, etc.) used to carry out activities, produce outputs and/or accomplish results.[16]	- # of staff assigned to a task - $ spent per inspection - Ratio of # of staff to # of regulated facilities
Output Indicator	Government activities, work products, or actions.[17]	- # of enforcement cases settled per year - # of fines issued per year
Intermediate Outcome Indicator	Measure progress towards achieving final outcomes, such as changes in behavior, knowledge, or conditions that result from program activities.[18]	- pounds of pollutants reduced through enforcement actions
Outcome Indicator	The real impacts of compliance promotion and enforcement actions[19] and the ultimate change in the state of the environment	- improved water quality - improved air quality

ECE Indicators in Practice

At the INECE-OECD Workshop, country representatives described their efforts to develop more adequate performance

indicators. European country representatives discussed the applicability of outcome indicators to their European Union reporting requirements. The Netherlands, for example, has developed a risk-compliance indicator matrix (see Figure 1), which is used to assess enforcement goals and target inspections.[20] The matrix allows the Dutch Inspectorate to focus resources on priority activities that fall within the upper right hand corner of the matrix, indicating both a high level of risk to public health, safety, and the environment and a high potential for non-compliance.

FIGURE 1: THE NETHERLANDS ENVIRONMENTAL INSPECTORATE RISK-COMPLIANCE MATRIX21



Other country representatives, including those from Canada[22] and Mexico,[23] described the development pilot projects in selected areas to measure outputs and outcomes of compliance promotion and enforcement activities. Representatives from transitional and emerging economies, including those from Czech Republic,[24] Russia,[25] Belarus,[26] and Thailand,[27] described the quantitative "input" and "output" indicators used in their countries.

Environment Canada has been a leading contributor to the development of ECE Indicators, launching pilot projects on performance measures for compliance promotion activities in six program areas, including environmental emergency regulations, mining, agriculture activities, and volatile organic compounds. Recently, Environment Canada held a workshop to discuss results and lessons from these pilot projects. Workshop participants recognized the need to engage stakeholders, including risk managers and compliance promotion and enforcement officers, and to ensure that results are analyzed, interpreted, and used to make decisions and trigger changes along the compliance continuum.[28]

Country representatives also described the ways in which indicators are being used to assess performance on a facility-by-facility basis. In Poland, a list of "worst polluters" has been used for monitoring compliance and assessing the performance of inspectors.[29] In the U.S., the EPA uses the Toxic Release Inventory as a resource to target inspections.[30] In the Netherlands, the Pollutant Release and Transfer Registry system is used for the same purpose.[31]

However, there are many impediments to the establishment of ECE Indicator projects in transitional and developing countries. Representatives from Argentina, for example, identified legal and institutional development processes that need to occur in their country prior to the creation of an ECE Indicator program, including:

* Clear differentiation of responsibilities between levels of government;
* Development of environmental strategic plans and systematized environmental compliance and enforcement programs;
* Prioritization of environmental issues in the public budget;
* Full implementation of the right to access environmental information, public participation in the decision-making process, and access to justice regarding environmental issues; and
* Creation of an environmental information system, which the authorities must organize and implement to provide information.[32]

FUTURE STEPS

At the conclusion of the INECE-OECD Workshop, participants discussed future steps to support the development of ECE Indicators. Participants emphasized that the development of guiding principles, including a set of common definitions, methodology, models, and good practices for developing country-specific projects, for the implementation of ECE Indicators is an important and necessary task.[33] In order to assure further progress in supporting regional and country-specific work, proceedings from the workshop will be published by OECD, as well as disseminated via the INECE Web site and via email.[34] Furthermore, countries with experience in developing ECE Indicators will pursue in-country projects, while INECE and its partner organizations will work with other countries to form new demonstration and pilot projects.[35]

ENDNOTES: The INECE Indicators Project

[1] INECE is a network among government and non-government compliance and enforcement practitioners from over 100 countries, bringing together developed, transitional, and developing economies. Founded in 1989, INECE is a worldwide leader in developing networks for enforcement cooperation, strengthening capacity, and raising awareness about the importance of compliance and enforcement.

[2] *INECE Expert Working Group on Envtl. Compliance and Enforcement Indicators*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (October 22, 2003), *available at* http://inece.org/IndBackPaper.pdf [hereinafter *Expert Working Group*].

[3] *See id.*

[4] *Id.*

[5] *Summary Report of the INECE-OECD*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (March 31, 2004), *available at* http://www.inece.org/indicators/workshop_pro.html [hereinafter *Summary Report*].

[6] *Special Edition on Environmental Compliance and Enforcement Indicators*, INECE NEWSLETTER 6 (INECE), 2002, *available at* http://inece.org/Newsletter6.pdf.

[7] Components of a successful compliance and enforcement program adapted from U.S. EPA, PUB. NO. 300F93001, PRINCIPLES OF ENVIRONMENTAL ENFORCEMENT (1992). The PRINCIPLES OF ENVIRONMENTAL ENFORCEMENT were developed by the U.S. EPA in consultation with the Netherlands' Ministry of Housing, Spatial Planning and the Environment; the Polish Ministry of Environmental Protection, National Resources, and Forestry; and the Katowice Ecology Department in Poland. The full text of the PRINCIPLES is available on the INECE Web site at http://inece.org/enforcementprinciples.html.

[8] ZAELKE, DURWOOD ET AL., THE INECE ENFORCEMENT INDICATORS: EXECUTIVE SUMMARY AND ANNOTATED OUTLINE FOR A MULTIYEAR PROJECT (2002), *available at* http://www.inece.org/conf/indDZ08_30.htm.

[9] One such index is the Pressure-State-Response ("PSR") framework developed by OECD. OECD's PSR model classifies environmental indicators into indicators of environmental pressures, both direct and indirect; indicators of the state of the environment; and indicators of societal responses. "Pressure" refers to human pressures on the environment. "State" refers to the state of environmental resources (air, water, soil, the biosphere). "Response" refers "to individual and collective actions and reactions, intended to i) mitigate, adapt to or prevent human-induced negative effects on the environment; ii) halt or reverse environmental damage already inflicted; iii) preserve and conserve nature and natural resources," including environmental enforcement actions. *See* OECD, OECD ENVIRONMENTAL INDICATORS: DEVELOPMENT, MEASUREMENT, AND USE (2003). *available at* http://www.oecd.org/dataoecd/7/47/24993546.pdf.

[10] UNITED NATIONS, JOHANNESBURG PLAN OF IMPLEMENTATION (2002), *available at* http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm.

[11] *Summary Report*, *supra* note 57.

[12] The outcomes of the Workshop are available through the INECE Web site at http://www.inece.org/indicators/workshop.html. The common definitions were developed in March 2004 and released on the INECE Web site at http://inece.org/forumsindicators.html. In the coming moths, INECE will work with its partners at OECD, the World Bank Institute, Environment Canada, the U.S. EPA, and many other national governments to further implement this process of identifying, designing, and using indicators to assess the impact of compliance and enforcement activities at the national, regional, and international levels.

[13] *Expert Working Group*, *supra* note 24.

[14] Michael Stahl, *Performance Indicators for Environmental Compliance and Enforcement Programs: the U.S. EPA Experience*, 6TH INT'L. ENVTL. CONF. ON COMPLIANCE AND ENFORCEMENT, (2002), *available at* http://inece.org/conf/proceedings2/27-Performan%20Indicators.pdf.

[15] EXPERT WORKING GROUP, *supra* note 42.

[16] Treasury Board of Canada, Results-Based Management Lexicon, *available at* http://www.tbs-sct.gc.ca/rma/dpr/00-01/guidance/lexicon-e.asp (last modified Apr. 9, 2004).

[17] EXPERT WORKING GROUP, *supra* note 42.

[18] *Id.*

[19] Frank Barrett & Dave Pascoe, Environmental Compliance And Enforcement Indicators: Environment Canada Pilot Projects – Addressing Challenges, INECE-OECD Workshop on Envtl. Compliance and Enforcement Indicators: Measuring What Matters (2004), available at http://www.inece.org/indicators/workshop_pro.html.

[20] Angelique A.A. van der Schraaf, & Jan van der Plas, *Environmental Compliance and Enforcement Indicators in The Netherlands*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[21] *Id.*

[22] Barrett & Pascoe, *supra* note 2119.

[23] Alejandra Goyenechea, *PROFEPA's Strategic Information System*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[24] Jirí Fencl et al., *Used and Proposed Indicators at Czech Environmental Inspectorate*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[25] Vladimir Schwartz, *Analysis of System of Environmental Enforcement and Compliance Indicators in the Russian Federation*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[26] A.A Kovaltchiuk, *Analysis of System of Indicators for Inspection Activities in the Republic of Belarus*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[27] Thasanee Chantadisai, *Country Report on Environmental Indicators in Thailand. Published in INECE*, INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[28] Press Release, Drolet, Rene, Environment Canada's Workshop on Performance Measures for Compliance and Enforcement (2004) *available at* http://inece.org/news/canadaindicators.pdf.

[29] *Summary Report*, *supra* note 75.

[30] *Id.*

[31] *Id.*

[32] María Eugenia di Paola, *Environmental Compliance and Enforcement Indicators in Argentina: Primary Concerns,* INECE-OECD WORKSHOP ON ENVTL. COMPLIANCE AND ENFORCEMENT INDICATORS: MEASURING WHAT MATTERS (2004), *available at* http://www.inece.org/indicators/workshop_pro.html.

[33] *Id.*

[34] The Workshop Proceedings are available at http://www.inece.org/indicators/workshop_proc.html.

[35] *Summary Report*, *supra* note 75.

Fighting Black Markets and Oily Water:

The Department of Justice's National Initiatives to Combat Transnational Environmental Crime

by Jim Rubin and Shata Stucky†*

Introduction

In recent years, there has been an increase in global attention paid to transnational environmental crimes. These crimes include the illegal international trade of environmentally sensitive materials, such as protected wildlife or ozone depleting substances ("ODS"), and other conduct that violates standards and obligations established by international environmental treaties, such as oil pollution from ocean going vessels. These crimes support lucrative black markets, estimated in 2000 to be in upwards of $8 billion a year for wildlife and ODS alone, robbing countries of needed financial and biological resources and providing outlets for organized crime. They further threaten the world's biodiversity, atmosphere and oceans, and undermine the international agreements established to counter these threats.

In the United States, the Department of Justice's Environment and Natural Resources Division ("ENRD"), with the assistance of domestic and global partners, has developed a number of coordinated enforcement initiatives and programs that have effectively targeted resources to address these crimes. As a result, ENRD has successfully prosecuted a large number of transnational environmental crimes, leading to significant criminal convictions, jail sentences, and fines. This article will first briefly describe the work of ENRD and its role in federal enforcement and then provide more detail on ENRD's efforts to address transnational crime in three areas: smuggling of ODS; smuggling of protected species; and vessel source pollution.

The Role of ENRD in Enforcement

ENRD is responsible for all environmental and natural resources related litigation filed on behalf of or against the United States in federal courts (e.g. laws related to air and water pollution; solid and hazardous wastes; environmental reviews; wildlife and ocean resources; land use, planning, and management; and forest, mineral, and energy resources). ENRD has responsibility for over 10,000 cases filed in all 94 federal judicial districts and employs over 400 attorneys at its headquarters in Washington, D.C. and in field offices across the country. These include affirmative enforcement matters (currently 30% of ENRD's cases) and non-discretionary matters such as defensive litigation and land acquisition. ENRD also works in tandem with locally based U.S. Attorneys in each of the 94 judicial districts. As will be described below, the relationship between ENRD and U.S. Attorneys is particularly close in handling cases involving transnational crime. ENRD is relatively unique among justice ministries around the world as a large unit focused exclusively on environmental and natural resource litigation. Among other things, this allows ENRD to develop expertise in environmental litigation, to better coordinate major national enforcement initiatives and to maintain consistent positions in litigation. Within ENRD, there are over 30 attorneys who specialize in prosecuting environmental crime, including crimes of a transnational nature (ENRD attorneys also handle civil enforcement as well as defense of federal entities, appellate matters, land acquisition, and Native American issues). This article will focus specifically on this aspect of ENRD's work.

In the criminal context, ENRD represents a large number of federal agencies, including the Environmental Protection Agency ("EPA"), the Departments of Interior and Commerce, and the U.S. Coast Guard ("USCG"), who are responsible in the first instance for investigating violations of federal environmental laws. If those investigations lead to referrals to ENRD, the Division will then decide whether to prosecute a matter. ENRD does not have its own investigative arm but, as will be described below, is actively involved in initiatives and building cases from the very outset with investigators from other agencies. Wherever possible, if a particular case involves other countries or foreign conduct, ENRD will seek the cooperation of foreign enforcement officials either through formal mutual legal assistance treaties ("MLATs"), extradition treaties, or informal cooperation. To bolster this cooperation, ENRD has regularly reached out to other countries to share information, and, experience, and if requested, to build capacity for enforcement. Finally, ENRD works with international organizations such as Interpol, the North American Commission on Environmental Cooperation ("CEC"), the United Nations Environment Programme ("UNEP"), and the International Network of Environmental Compliance and Enforcement Officials ("INECE") to strengthen its own and other nations' enforcement capabilities and to maintain contacts for future cases and cooperation.

National Initiatives to Combat Transnational Crime

Like many other governmental agencies or components, ENRD faces real pressures to maximize the productivity of its resources, particularly in the enforcement arena, which as noted above only constitutes a portion of the Division's budget and

*Jim Rubin is Assistant Chief of the Policy, Legislation and Special Litigation Section of the U.S. Department of Justice's Environment and Natural Resources Division, where he coordinates international environmental matters. Jim.Rubin@usdoj.gov.

†Shata Stucky is a paralegal specialist in that section. The views expressed in this article do not necessarily represent official positions of the United States or the Department of Justice.

workload. ENRD has found that through targeting specific types of crimes, it can make the most effective use of its resources. To do so, ENRD has developed a number of environmental criminal initiatives and programs, both in the domestic and transnational areas. These efforts share the common elements of discerning national patterns of criminality, sharing data among domestic and foreign agencies, and ensuring regular communication and training among all relevant enforcement officials.

It should also be noted at the outset that ENRD's transnational crime initiatives and programs owe their success to a number of institutional elements present at the federal level in the United States. These include a broad range of meaningful and effective laws that protect air, water, natural resources, public health, and other interests. Additionally, there are resources for and there is a political commitment to compliance and enforcement. Finally, there is a fair, independent, and impartial judicial system with judges who are informed about environmental laws and the effects of environmental harm. Mandatory sentencing guidelines that cover environmental crimes further ensure fair, consistent, and meaningful sanctions for violators. Thus, the U.S. model cannot necessarily be replicated in countries where one or more of these elements is lacking; nonetheless, a focused discussion of these initiatives and programs can help identify the importance of the underlying institutions and suggest ways of building capacity to support them.

"ENRD has responsibility for over 10,000 cases filed in all 94 federal judicial districts."

Below, we shall discuss three particular areas where ENRD and its partner agencies have developed initiatives and programs to combat transnational crime. The first two address the illegal trade in ODS and protected species of wildlife. The third concerns efforts to prevent despoiling of ocean resources by vessel pollution, primarily from oil. These efforts not only protect the health of U.S. citizens and their ability to enjoy natural resources in a sustainable manner, but they also protect the global environment through the promotion of multilateral environmental agreements ("MEAs.") ENRD's initiatives and programs have served as powerful tools for the United States' implementation of several important MEAs to which it is a party. These agreements lack international enforcement mechanisms and therefore their successful implementation depends on effective domestic implementation and enforcement. Finally, we will briefly detail the importance of developing and utilizing international enforcement networks and contacts to facilitate enforcement against transnational crime, and in so doing, further promoting the MEAs that address these problems.

Chlorofluorocarbons Initiative and Task Force

ENRD's initiatives to combat crime, including transnational crime, are frequently bolstered by task forces, which consist of local, state and federal - and sometimes foreign - enforcement officials. Task forces promote cooperative and consistent efforts at all levels of government and provide opportunities to gather and exchange information with others interested in efficient and systematic enforcement. Additionally, pre-existing task forces allow for the quick mobilization of investigative, technical, and legal resources of diverse agencies to respond to serious criminal violations. Below, we will discuss the Chlorofluorocarbons Initiative, which has made particularly effective use of the task force concept.

Due to an international phase-out of production and consumption of ODS in industrial nations under the Montreal Protocol on Substances that Deplete the Ozone Layer ("Montreal Protocol"), a vast black market for these chemicals has developed, estimated in 2000 at between $1-2 billion worldwide. These colorless, odorless gases, which include chlorofluorocarbons ("CFCs" such as "Freon," a common refrigerant), halons, and methyl bromide (a pesticide and agricultural fumigant), are commercially valuable but contribute to the destruction of the stratospheric ozone layer that protects the Earth from harmful ultraviolet radiation. Under the Montreal Protocol, they can only be manufactured in countries undergoing industrialization until a final phase out in 2010. The consumption of ODS in industrialized countries, like the United States, is tightly controlled and limited mainly to recycled product and some excepted uses. The price of recycled ODS can be quite high, so there is a large profit margin for black market chemicals, which move from countries still allowed to produce the chemical to and through industrialized countries, where such importation is generally illegal. Moreover, these gases can be transported in small canisters, are difficult to identify and interdict, and frequently are fraudulently labeled as "used" product, which can be lawfully sold in some countries like the United States subject to licensing and tax restrictions.

In the United States, trade in ODS is governed by several different U.S. laws and regulations. Since 1996, the production and import of some of the most harmful ODS into the United States has been prohibited (prior to that date, companies had to possess "consumption allowances" to import ODS). 40 C.F.R. §§ 82.4(b-d). However, "used" ODS or ODS stockpiled before the 1996 ban may lawfully be sold subject to certain licensing and tax obligations. 26 C.F.R. § 52.4681-1(a)(3), 40 C.F.R. § 82.154(n). Hence, businesses may petition EPA to import recycled or "used" ODS, but cannot import newly manufactured chemicals. 40 C.F.R. §§ 82.13(g)(2-3).

Violations of these regulations and permit requirements are enforceable through both civil and criminal judicial proceedings under the Clean Air Act ("CAA"), 42 U.S.C. §§ 7413(b) and (c). Criminal penalties include fines and up to five years imprisonment or more for a subsequent conviction. U.S. enforcement

officials also use a number of other laws as well to prosecute violators, including more generic customs laws prohibiting false records (e.g. 18 U.S.C. §§ 542, 545), as well as tax laws which require excise taxes to be paid on imported ODS and reported to the Internal Revenue Service (26 U.S.C. §§ 4682, 7201, 7203). Violations of these laws can lead to felony prosecutions, imprisonment and large fines.

To enforce the relevant CAA provisions, ENRD and EPA have created a task force comprised of federal, state and sometimes foreign enforcement officials to maximize resources, coordinate enforcement, and target specific problem areas. The task force was created several years ago, after U.S. Customs officials in Miami alerted ENRD to their region's smuggling problem and the likelihood that it may be occurring nationwide. ENRD attorneys then assessed the problem by comparing Customs data on importation of Freon to data on permitted imports of Freon collected by EPA. The analysis indicated twelve geographic areas with the greatest number of suspicious imports. Working closely with the United States Attorneys, ENRD then brought investigators and prosecutors from those regions together in a National CFC Enforcement Meeting to discuss the relevant laws, regulations, and data and share experiences in investigations and prosecutions. This meeting resulted in successful prosecutions and seizures in six states and territories and ultimately led to the creation of the interagency CFC Task Force.

The Task Force is comprised of prosecutors, tax and customs officials, and criminal investigators from most major U.S. ports and representatives from Canada's law enforcement and environment agencies. Past participants have also come from Mexico and the European Union. The task force meets quarterly to coordinate cases and discuss new information and developments. These efforts strengthen enforcement by sharing leads, avoiding overlapping efforts, and using cooperating witnesses and evidence in several different cases. To date, such efforts have led to 82 cases being indicted, 119 defendants who have pled guilty or been convicted at trial, over 76 years of imprisonment (including home detention), and over $70 million in fines and restitution, including forfeiture of a $2 million mansion and various luxury goods purchased with the proceeds of illegal ODS transactions. An estimated 16,240,692 pounds of CFCs have been smuggled into the United States, and nearly two million pounds have been seized.

In addition to the work of the Task Force, ENRD and EPA have trained investigators and customs inspectors around the nation, and, after completing a study of supply and demand of Freon, issued a nationwide alert informing Customs and IRS inspectors of the likelihood of increased smuggling activity. ENRD and EPA officials have also participated in training programs in Mexico through the CEC and around the globe under the sponsorship of UNEP. These training sessions have allowed ENRD prosecutors to increase the regulatory and enforcement capacities of countries that can be the source or conduit of illegal products entering the United States and to develop valuable contacts for help in specific cases. Additionally, these efforts have led to greater implementation of the Montreal Protocol.

ENRD's Wildlife Program

For over 30 years, the Convention on International Trade in Endangered Species of Wild Fauna and Flora ("CITES") has regulated the international trade in endangered wildlife and attempted to stem the significant illegal trade in such species. The illegal trade in wildlife - both animals and plants - has led to widespread loss of biodiversity and habitat and has allowed the import of exotic species and diseases. CITES seeks to protect endangered species from international trade by placing species in appendices, based on the severity of the threat of extinction. Certain controls on trade in these species are required depending on in which appendix they are placed. Those species most in danger of extinction from trade are listed in Appendix I and are largely banned from commercial trade. The lawful trade in other species (Appendix II and III) must be accompanied by permits or certificates from the exporting country. Yet, despite widespread participation in CITES by the nations of the world, there is an ever-growing worldwide black market in such species to supply the markets for pets, zoos, circuses, laboratories, traditional medicine, luxury products, and bush meat. Illegal trade in mahogany and ramin woods has devastated tropical forests. In 2000, this black market was valued at $6 billion a year worldwide. The most common forms of illegal trade involve wildlife smuggled into countries without any CITES permits or through falsified documents.

"ENRD's wildlife smuggling program has resulted in the successful prosecution and imprisonment of a number of large and small-scale smugglers, including the leaders of some of the world's largest smuggling operations."

In the United States, a number of statutes authorize prosecution of wildlife smugglers. Among the statutes most frequently relied upon for these prosecutions is the Endangered Species Act ("ESA"), 16 U.S.C. §§ 1531 et seq. The ESA generally prohibits the import, export, or sale in interstate or foreign commerce in the course of a commercial activity of any listed endangered or threatened species without a valid permit. The ESA

also makes it unlawful to import or export wildlife at any port of entry other than specifically designated ports, to fail to declare wildlife upon importation or exportation, or to engage in importing or exporting without a license. 50 C.F.R. Part 14. Criminal violations, which require only general intent, may result in penalties up to one year of imprisonment, fines, and forfeiture of the species involved and equipment used to aid in the commission of the offense. 16 U.S.C. § 1540; 18 U.S.C. § 3571.

In addition to the ESA, U.S. enforcement officials can prosecute wildlife smugglers under the Lacey Act and under more general Title 18 provisions. The Lacey Act, the oldest national wildlife protection law in the United States, is a particularly valuable tool to address transnational crime. It applies broadly to all wild animals, alive or dead, and to any part, product, egg, or offspring, as well as to protected plants indigenous to the United States. 16 U.S.C. § 3371(a). The Lacey Act creates both misdemeanor and felony offenses, which can result in up to five years imprisonment, substantial fines, and forfeiture of equipment and wildlife involved in the offense. Additionally, violations of the Lacey Act can be predicated on breaches of foreign laws or regulations. For example, a person who imports into the United States wildlife which has been taken, possessed, transported, or sold in violation of a wildlife-related foreign law or regulation (local, provincial, or national) can be prosecuted in the United States under the Lacey Act based upon a violation of that foreign country's laws.

"The hoped for results of all this exchange are the development of trust, knowledge, increased enforcement capacity, and a will to enforce."

It is this aspect of the Lacey Act. that makes it so valuable and important, since it authorizes the United States to literally reach illegal conduct that occurs in other countries, even if the wildlife at issue is not listed on CITES and to impose penalties even stronger than the ESA. Of course, such use of the Lacey Act depends on the willingness and ability of foreign enforcement officials to provide evidence of their wildlife laws, testify in U.S. court, and otherwise cooperate with U.S. officials. Finally, a number of more general Title 18 provisions can be used to prosecute wildlife trafficking, such as the smuggling statute, 18 U.S.C. § 545, a felony offense, which penalizes the importation of any merchandise, including wildlife, contrary to federal law.

These laws give ENRD attorneys a broad array of tools to address wildlife smuggling, but ENRD must first rely on the investigative ground-work performed by several U.S. agencies, including the Department of Homeland Security's Customs and Border Protection Service ("CBP"), the Department of Interior's Fish and Wildlife Service ("FWS"), the Department of Commerce's National Marine Fisheries Service ("NOAA Fisheries"), the USCG, and the Department of Agriculture. Their respective jurisdictions are normally determined by the type of wildlife at issue or where the alleged violation occurred. State wildlife officers also investigate violations of state wildlife laws, which sometimes develop into federal cases. FWS port inspectors and CBP inspectors typically detect trafficking offenses. The FWS also employs about 230 special agents around the country who investigate violations of federal wildlife laws, issue citations for minor offenses, and prepare more serious cases for referral to ENRD.

ENRD, in conjunction with the agencies listed above and the various U.S. Attorney's Offices, has developed a wildlife smuggling enforcement program to combat the black market. This program has several components. First, ENRD and its partners, most notably the U.S. FWS, identify and focus attention and investigative resources on a specific type of illicit trade and, where appropriate a specific region. Examples have included birds from South America, reptiles from Southeast Asia, and caviar from Eastern Europe and Asia. In some circumstances, officials have focused particular attention on "king pins," who control and profit from large international smuggling networks. Second, interagency coordination and training are considered essential, given the broad range of officials responsible for investigating and prosecuting cases of wildlife smuggling. ENRD attorneys regularly provide training to U.S. Attorneys and federal, state, and foreign officials on wildlife enforcement matters. Third, ENRD has developed a particular expertise in prosecuting wildlife trafficking, employing attorneys who specialize in these cases and are well positioned to help guide enforcement efforts nationwide or handle cases of particular significance. Finally, the international nature of wildlife trafficking necessarily requires the cooperation of foreign officials, whether to provide information or evidence of illegal activities, provide testimony as to the violation of foreign laws, or surrender persons for extradition. ENRD regularly reaches out to foreign enforcement officials through both formal and informal channels to develop contacts and secure enforcement cooperation in specific cases. ENRD has participated in a number of foreign training efforts through Interpol, UNEP, the CITES Secretariat, and at the invitation of specific countries.

ENRD's wildlife smuggling program has resulted in the successful prosecution and imprisonment of a number of large and small-scale smugglers, including the leaders of some of the world's largest smuggling operations. These efforts have also led to confiscation of live animals and the imposition of significant fines. ENRD efforts to interdict caviar smuggling provide a good example of how the program works in practice. Working with FWS and CBP officials and U.S. Attorneys, ENRD identi-

fied caviar smuggling as a significant and lucrative illicit activity in a number of ports and businesses. ENRD gathered its partners at a "caviar summit" to share information on this specific type of smuggling, identify the likely actors and regions, and determine what further steps would be necessary to address the problem. Such focused activity has paid dividends. For example, in early 2002, ENRD led a coordinated effort to prosecute the owner of a food import company for conspiring to smuggle protected sturgeon caviar, making false statements to federal officials, and selling counterfeit caviar to retail food companies with false labels. The defendant received a sentence of two years in prison, incurred substantial criminal fines (both against him and his company), and paid as restitution the customs duties he had earlier avoided.

Vessel Pollution Initiative

Unlike the activities described above, which involve instances of illegal trade, vessel pollution arises from the conduct of ship owners and operators and crew members who seek to avoid the considerable costs and effort of treating waste oil and other shipboard wastes by engaging in deliberate overboard discharges without the use of required pollution prevention equipment and then falsify required log books which are regularly inspected by USCG during port visits. However, vessel pollution is still a transnational crime because it involves ships of foreign flags that regularly transport cargo and goods to the United States and around the world (in addition to domestic vessels transiting coastal waters and inland waterways. Moreover, the pollution caused by illegal vessel discharges can affect the resources of many nations. Finally, as with ODS and wildlife, there is an international agreement that regulates the discharge of vessels, the Convention and Protocol on the Prevention of Pollution from Ships ("MARPOL"). Vessel pollution that violates MARPOL standards will necessarily violate the domestic laws of countries such as the United States that implement MARPOL.

MARPOL, also over 30 years old, is the primary international convention addressing vessel pollution. It is actually a combination of two treaties and includes annexes regulating discharges of oil, noxious liquids, and harmful goods in packaged form, sewage, garbage, and most recently air emissions (the latter annex and the annex on sewage not yet being in force). These annexes establish international standards, authorize inspections and require certain certifications and reporting. Annex 1 on oil pollution, among other things, requires continuous monitoring of oily water discharges, and requires countries to provide shore reception and treatment facilities at oil terminals and ports. It allows for ships to be inspected in the ports of other MARPOL parties to ensure that such ships meet MARPOL requirements.

In the United States, MARPOL is principally implemented through the Act to Prevent Pollution from Ships ("APPS"), 33 U.S.C. §§ 1901 et seq. APPS applies to all U.S. flag ships anywhere in the world and to all foreign flag vessels operating in U.S. navigable waters or while at a port or terminal under U.S. jurisdiction. Among other things, APPS requires the use of oil-water separators for certain vessels as well as the regular reporting of all overboard transfers of oily waste in logbooks that are routinely inspected by USCG. In addition to APPS, a number of other federal laws may regulate discharge of oil into water and oil spills. These include the Federal Clean Water Act ("Clean Water Act" or "CWA"), as amended by the Oil Pollution Act of 1990 ("OPA"), which prohibits discharges of oil into U.S. waters and requires reporting of spills to designated authorities. The CWA provides administrative and civil penalties for violations of its requirements, as well as criminal penalties for knowing or negligent discharge of oil and for failure to report a spill to authorities. 33 U.S.C. §§ 1319(c)(1) & (2) and 1321(b)(3) & (5). OPA also authorizes recovery of removal costs and civil damages, including to natural resources, arising from oil spills in U.S. waters or the exclusive economic zone. 33 U.S.C. § 2702. The Marine Protection, Research and Sanctuaries Act ("Ocean Dumping Act"), 33 U.S.C. § 1411, provides civil and criminal penalties for unpermitted dumping of materials into the ocean, including oil if that oil was brought on board to be dumped. 33 U.S.C. §§ 1402(c), 1411, 1415. Finally, a number of general crime provisions as well as maritime and natural resource laws could be implicated by vessel discharges. These include violations of: 18 U.S.C. § 1001 for false statements provided in oil record books; 46 U.S.C. § 2302 and 18 U.S.C. § 2 for operating a ship in a grossly negligent manner; the Ports and Waterways Safety Act for failure to notify USCG of hazardous condition of a vessel; and other specific maritime laws. Depending on where a spill occurred and what damage it might have caused, the E.S.A. Act, National Marine Sanctuaries Act and other wildlife laws might also be relevant.

Similar to wildlife and ODS smuggling investigations, vessel pollution investigations must be completed by law enforcement agencies before ENRD can begin its prosecution work. USCG and EPA are the primary agencies responsible for enforcement of APPS, CWA, OPA and related laws and refer cases, mainly criminal prosecutions, to ENRD for judicial enforcement. ENRD has developed a training program that has been crucial to educating the necessary officials as to how to build a case for successful U.S. prosecution.

ENRD's Vessel Pollution Initiative is a multi-pronged program aimed at deterring pollution from ships into the oceans, U.S. coastal waters and inland waterways. The Initiative includes pro-active operations, outreach to local prosecutors' offices, policy coordination and training of agency investigators and officials who are first responders to vessel spills. While there have been criminal prosecutions for major environmental damage resulting from catastrophic oil spills that have occurred from time-to-time, the Vessel Pollution Initiative has focused more on the detection and prosecution of deliberate violations of environmental laws by vessel operators that occur on a regular and routine basis. These have included successful prosecutions of the world's large cruise ship operators, oil tankers, and tug and barge operators on inland rivers. In the last five years, the Initiative has resulted in over $80 million in criminal fines, over eleven years of imprisonment (including corporate executives), and agreements to institute fleet-wide pollution prevention pro-

grams for most major cruise lines and several commercial fleets. A number of recent prosecutions have uncovered systematic practices aboard fleets of commercial ships to unlawfully discharge oily wastes at sea and to then falsify records and lie to USCG inspectors in order to conceal the illegal practices. The criminal prosecutions, which have highlighted this problem, have also led USCG to intensify inspection procedures to better detect and deter these types of violations.

As with the other initiatives, the Vessel Pollution Initiative arose from a growing recognition of illegal conduct that was not being addressed and a focus on specific regions where such conduct was believed to be occurring. It has required the pro-active cooperation and coordination of a number of federal, state, and local (and foreign) agencies and the regular exchange of information among them. ENRD has conducted numerous training events with USCG and local officials, as well as with U.S. Attorneys, in order to develop a broader expertise in detecting and prosecuting these crimes. Finally, ENRD is increasingly looking to share information and experiences with other nations. In ENRD's experience, detection and prosecution of vessel pollution cases, even for spills and discharges occurring outside U.S. territorial waters, are not difficult and can be based on the use of standard, readily available technologies. ENRD believes the success of its Initiative can easily be replicated by other countries with the political will and resources to address this problem. To that end, ENRD has begun making presentations at relevant international fora such as the International Maritime Organization, and providing training to other maritime countries. ENRD hopes that such efforts will lead to more cooperation and enforcement in the United States as well as around the world.

The Importance of International Networks and Coordination

In each of the initiatives and programs described above, formal and informal international enforcement cooperation and information exchange are critical. Smuggling of wildlife and ODS necessarily involve the United States and its trading partners, for the goods must come into the United States from somewhere else, frequently through a third country. Therefore, ENRD cannot prosecute such smuggling without some information and cooperation from exporting or trans-shipping countries. As stated above, use of the Lacey Act, a particularly effective wildlife smuggling statute, may be premised entirely on the laws of another country, making formal legal assistance (e.g., securing testimony and evidence through MLATs) absolutely essential. Vessel pollution cases, too, frequently require coordination and cooperation with foreign governments under which those vessels are flagged or which have information about discharges. In all these cases, defendants are frequently from other countries, which might require extradition or cooperation in interdiction.

Given the international nature of these crimes and their prosecution, it is essential that ENRD and its enforcement partners maintain close and continued contact. This is not often the case because some countries allow only formalized contact through established diplomatic channels or MLATs, some do not wish to cooperate or are limited by their laws, and some just do not know whom to call. This is where international networks and informal exchanges can be critical. Participation in international networks such as INECE, international meetings of Interpol and other organizations, and training activities, U.S. and foreign officials can meet and get to know each other, gauge their respective capabilities, interests and authorities, discuss common problems and intelligence, share best practices, and seek ways to enhance enforcement efforts all over the world. Enhanced global enforcement is a particularly important goal for implementation of international environmental agreements such as the Montreal Protocol, CITES, and MARPOL. Such efforts must be continuous in order to reflect changing national and international circumstances, the nature of the crimes, and simply the constant change in personnel. Virtual networks can be particularly critical by allowing real time updates and rapid dissemination of information. Ultimately, the hoped for results of all this exchange are the development of trust, knowledge, increased enforcement capacity, and a will to enforce. In the end, this type of contact benefits all parties involved and the global environment.

Conclusion

Every country, whether industrialized or developing, undoubtedly faces serious resource constraints that provide impediments to effective and consistent prosecution of environmental crimes. Transnational crimes such as smuggling and vessel pollution, however, are too significant to ignore; they exact tremendous costs in terms of lost financial, recreational and biological resources, increased global resource pollution, and the undermining of domestic law and international agreements. The United States is no different in having too few investigators and prosecutors to interdict every smuggled item or defeat every discharge of oil. ENRD and its partner agencies have addressed this shortage by developing a number of coordinated initiatives and programs. These efforts maximize resources to address transnational crime in as effective a way as possible to punish violators, deter others from committing crimes, and mitigate environmental harm wherever possible. Of course, the success of these initiatives and programs depends on the existence in the United States of strong authorities to implement the relevant international treaties and, more importantly, the political will to work together to prosecute and sentence those who violate the law. Those factors are not necessarily found all over the world. Nevertheless, the initiatives and programs discussed above can be instructive to other countries facing the same transnational crimes and resource issues, even if they cannot be (or should not be) exactly replicated. At the same time, U.S. enforcement authorities must necessarily depend on the cooperation of other countries for assistance in prosecuting transnational violations. ENRD stands ready to work with other countries to bring specific enforcement cases, share information, build domestic enforcement capacity, and foster greater cooperation.

An Environmental Agenda for the Future:

Preserving the Environment and Strengthening the Economy

*by Liz Klein**

Introduction

In September 2003, with little fanfare or attention, the Office of Management and Budget ("OMB") released *Informing Regulatory Decisions: 2003 Report to Congress on the Costs and Benefits of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*.[1] The report is a direct response to the Regulatory Right-to-Know Act, which requires OMB to report to Congress each year on the annual total costs and benefits of federal regulatory programs, the economic impacts of the regulations, and OMB's recommendations for reform.

According to the report, major federal rules promulgated by the Environmental Protection Agency ("EPA") realized between $1.2 and $4.8 billion in benefits and just under $200 million in costs in fiscal year 2002.[2] For the ten-year period from October 1, 1992 to September 30, 2002, the report estimates that the benefits from major EPA regulations were between $2.3 and $6.4 billion, while costs were kept below $2 billion.[3] The report also notes that "of the 107 rules reviewed by OMB over the last ten years, four EPA rules…account for a substantial fraction of the aggregate benefits reported."[4] Two rules limit particulate matter and NO_X emissions from heavy duty highway engines, one rule limits emissions from light duty vehicles, and the other rule limits sulfur dioxide pursuant to acid rain provisions in the 1990 Amendments to the Clean Air Act.[5]

These results may be surprising considering the environmental stance of the current Administration, the rhetoric against environmental regulations, and the constant animosity between stakeholders involved in environmental policy debates. However, these results lend support to a growing recognition that sound environmental policies, even those which include regulations, can in fact increase efficiency and lower costs while also benefiting the quality of air, land and water. Although most U.S. industries still resist the notion of regulations, more and more corporations are adopting higher environmental standards, realizing that such standards improve their performance by eliminating waste, encouraging technological innovation and providing stability for the future.

"… sound environmental policies, even those which include regulations, can in fact increase efficiency and lower costs while also benefiting the quality of air, land and water."

This article provides an introduction to some of the components necessary for a comprehensive environmental agenda for the future. Such an agenda must include recognition and reward of sustainable corporate practices, increased emphasis on the value of stakeholder partnerships, and a strong government regulatory scheme supported by vigilant enforcement.

Corporate Responsibility

The fight against further government regulation often focuses on how the costs imposed on industry will affect job security and the ability of businesses to remain economically viable. Many members of Congress and the current Administration are keenly aware of these concerns and are quick to vilify any form of government regulation. In the press release announcing OMB's report, Dr. John Graham, Administrator for the Office of Information and Regulatory Affairs at OMB, stressed the Administration's commitment to simplifying and streamlining regulations to ensure that "well-intentioned compliance requirements do not have the unintended effect of killing jobs."[6] S. Fred Singer, President of the Science & Environmental Policy Project, suggested in the early 1990s that the U.S. was "approaching a critical level where in fact the economy is strangled, where enterprise is restrained, where entrepreneurship is stifled."[7] Such assumptions about the negative effects of government regulations belittle the very substantial long-term benefits of environmental regulations.

Throughout U.S. industry, corporations of all sizes are developing policies that are environmentally friendly, but also good for business. The impetus to create such policies is varied – from a reactive response to critics or required regulations, to participation in a government incentive program, and in some cases, to a recognition that profits and sustainable practices can go hand in hand.

Dow Chemical, for instance, made a significant investment in its environmental management policies after a steady decline in stock value and increasing threats to its business.[8] The policies focus on recycling, eliminating waste, and reducing the use of scarce resources. Cargill Dow, a joint venture of Dow Chemical Co. and Cargill Inc., now produces plastic through a corn milling process, rather than

*Liz Klein is a J.D. Candidate, May 2006, American University, Washington College of Law.

making the material using petroleum or oil. Spending over $900 million since the mid-1990s to improve its environmental practices, the chemical giant announced in 2001 that it had realized $2.7 billion on its investment.

Citigroup, another major corporation, announced the adoption of a new, environmentally friendly corporate policy this year that added "environmental impact" among the criteria used to review financing projects.[9] The move came after two years of criticism and pressure from the Rainforest Action Network. Included in the financial institution's plan are investments in clean energy activities such as solar panels and fuel cells, reports on the amount of greenhouse gases emitted from projects it finances, and a ban on loans for commercial logging.

Even small companies, such as American Video Glass Co., are adopting environmentally friendly business practices.[10] The Pennsylvania television picture tube manufacturing company recently signed on to the National Waste Minimization Partnership with the EPA and agreed to voluntarily reduce their generation of hazardous waste chemicals. The company reported that a one-time, $90,000 investment in a dust recycling system is saving an estimated $12,000 per year. These are just some of the many examples of efforts being made across the country by the corporate world.

In addition to being good for an individual company's bottom line, the OMB report and many research studies suggest that environmental policies are also good for economic growth on a macro level. Daniel Esty and Michael Porter are two researchers analyzing the effects that environmental improvements can have on a country's economic progress. In their report, *Ranking National Environmental Regulation and Performance: A Leading Indicator of Future Competitiveness?*" they found "no evidence that improving environmental quality compromises economic progress."[11] Instead, their statistical analysis suggests a strong correlation between sound environmental management and economic growth.

Pressure from Advocacy Groups and Consumers

Understandably wary that corporate environmental announcements are often no more than mere public relations efforts, nonprofit organizations have generally been reluctant to praise these projects. Many environmental groups are quick to characterize such corporate policies as "greenwashing" intended to shield the public from other environmentally devastating activities. The focus for many such groups has been attempting to force change through public criticism and advocating an increased role for government regulation and enforcement.

Investors and consumers have also become increasingly aware of the importance of corporations using renewable resources and adopting environmentally sound business practices. Many companies recognize the value that such practices bring to their brand identity, their attractiveness to investors, and their future stability in the marketplace. However, in their report, *World Resources 2002-2004: Decisions for the Earth: Balance, Voice and Power*, the World Resources Institute ("WRI") noted that much greater emphasis should be placed on providing businesses with the concrete data they need to "understand how good environmental practice can connect to good financial performance."[12] The report noted that not enough corporations recognize the business value of adopting sustainable programs, thus there should be a greater focus on quantifying the benefits of sound environmental practices and making this information widely available to all stakeholders.

Promoting Partnerships

In addition to advocating greater access to information, WRI has joined other organizations in calling for increased collaboration and partnerships between traditional adversaries. Such partnerships foster open communication and allow increased understanding about the concerns of all stakeholders. Two leaders in the movement toward cooperative partnerships are Environmental Defense ("ED") (formerly the Environmental Defense Fund) and Pew Charitable Trusts.

In the late 1980s, ED created a pioneering partnership with the McDonalds Corporation, which led McDonalds to eliminate tons of packaging waste and implement a new recycling program.[13] On the tenth anniversary of the alliance, ED President Fred Krupp noted how creating these relationships and "combining diverse talents and perspectives in a spirit of cooperation can yield sustained environmental results."[14] Following this success, ED joined forces with Pew Charitable Trusts to create the Alliance for Environmental Innovation ("Alliance").

"Statistical analysis suggests a strong correlation between sound environmental management and economic growth."

Accepting no funding from its corporate partners, the Alliance works with private companies to create and implement environmentally friendly practices that are also friendly to the business' bottom lines. Current partners include United Parcel Service ("UPS"), SC Johnson, Bristol-Myers Squibb and Starbucks. The focus of these partnerships has been on reducing waste, decreasing emissions, and minimizing the environmental impact of formulated products. In addition to working with individual companies, the Alliance has encouraged other organizations to form similar partnerships. The Alliance provides a model partnership agreement on their website[15] and has published "*Catalyzing Environmental Results: Lessons in Advocacy*

Organization-Business Partnerships," a report of the Alliance's successes and failures over the years.[16]

Pew's Center on Global Climate Change has also established the Business Environmental Leadership Council, which is composed of a wide variety of companies that acknowledge the threat of climate change and work closely with Pew to find solutions.[17] Member companies pledge to address the threat of climate change through measures such as reducing greenhouse gas emissions and implementing waste reduction programs. Pew receives no monetary contributions from any members of the Council. In creating the Council, Eileen Claussen, founder and now President of the Pew Center for Global Climate Change, recognized that "solutions that do not make economic sense will eventually follow the declining path of the oceans, ecosystems, species and natural resources the Pew Center is trying to protect."[18] By working as partners rather than adversaries, advocacy organizations achieve a greater understanding of the economic pressures businesses face, while businesses learn the importance of sustainable practices.

"By working as partners rather than adversaries, advocacy organizations achieve a greater understanding of the economic pressures businesses face, while businesses learn the importance of sustainable practices."

Importance of Enforcement

Improved information about the benefits of environmentally friendly business policies, increased adoption of such policies by corporations, and better collaboration between nonprofit organizations and the corporate world mean little without a strong government regulatory scheme supported by vigilant enforcement. In its *Decisions for the Earth* report, WRI stresses the continuing need for government regulation in environmental disclosure policies. The report notes that the government is the only institution able to ensure adherence to environmental goals, and it is uniquely positioned to provide important data to businesses on the economic value of environmental programs.[19]

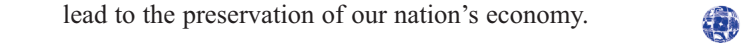
As the OMB report shows, government regulation in the last ten years has led to significant benefits for the environment, while keeping costs manageable. Former EPA Director William Reilly noted that through Clean Air Act regulations, the EPA "has been directly responsible for fostering new technologies and promoting the genuine integration of the nation's environmental aspirations with its economic goals."[20] Unfortunately, when such regulations are vilified, they are less likely to be enforced, and further regulation is jeopardized.

The Bush administration has faced significant criticism for its apparent unwillingness to enforce environmental regulations, particularly through the issue of sanctions or fines. A recent *Philadelphia Inquirer* article reported that violation notices against polluters have dropped significantly in the current administration.[21] While the first Bush administration averaged 195 citations a month and the Clinton administration averaged 183, the current administration average is just 77, and the average is falling with each year of Bush's presidency. Additionally, many are charging that the current administration is not committed to strong enforcement policies, as evidenced by the resignations of several top enforcement officials at the EPA, and by the White House's annual call for budget cuts for EPA enforcement. While administration officials contend that they use alternative methods to ensure compliance with regulations, many experts insist that violation citations are one of the most effective tools of enforcement. As former EPA Enforcement Chief Sylvia Lowrance pointed out, "[Violation citations] measure presence. They measure whether the enforcement cop is on the beat. And increasingly the cop is absent."[22]

Conclusion

A comprehensive environmental agenda for the future will be one that recognizes the compatibility of sustainable development and economic growth. We need to change the tone of the environmental debate and find increased opportunities for interaction and cooperation among nonprofits, industry, and the government. We also need to focus on the importance of quantifying the benefits of environmentally friendly practices in order to educate the corporate world about how such practices raise their bottom line, spur technological innovation, and promote stability into the future.

As the OMB report illustrates, while so many regulations are dismantled due to concerns about costs, the effects of some of the most contentious regulations, such as those promulgated under the Clean Air Act, clearly have benefits that far outweigh the costs. A strong regulatory scheme does not lead to economic disaster; instead, the government has a responsibility to assess the very real threats against the environment and establish the goals and guidelines that we must follow to address those threats. These goals must be backed by vigilant enforcement in order to be meaningful and in order for the full benefits of regulations to be realized. Not only can such a regulatory scheme lead to the preservation of our nation's environment, it can also lead to the preservation of our nation's economy.



ENDNOTES: An Environmental Agenda for the Future

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The Access Initiative:

Promoting Sustainable Development Through Good Governance

*by Melissa Dasgupta**

"Outside a closed battery recycling plant on Otay Mesa in Tijuana, Mexico, open pits of toxic waste…"[1] define the once pristine landscape, and "chemicals leaching up"[2] from the soil form an ominous and unnatural crust on the earth. "In the barrio of Chilpancingo, below the mesa, 19 children were born with no brains in 1993 and 1994, because of pollution from…[industrial facilities] on top of the mesa."[3]

Introduction

To prevent such horrific tragedies as the one that occurred in the barrio of Chilpancingo, environmental organizations across the world promote Multilateral Environmental Agreements and treaties, support educational campaigns, and participate in corporate lobbying and protests. The Access Initiative ("TAI"), however, focuses on "good governance" and the establishment of worldwide environmental standards as critical elements in avoiding these tragedies, and ultimately promoting sustainable development. TAI is a coalition of international groups "working together to promote national-level implementation of commitments to public access to information, participation, and justice in decisions that affect the environment."[4] TAI supports the premise that "good governance" values such as transparency, access to information, voting rights, and public accountability have a direct effect on a country's level of environmental compliance.[5]

TAI is modeled after Principle 10 of the 1992 Rio Declaration.[6] The organization asserts that access to information, an open decision-making process, and a system of justice are essential components of a comprehensive system of environmental enforcement. TAI's ultimate goal is to keep governments of participating countries accountable to the public for their actions. Accountability will then extend to other nations, creating an international awareness of the importance of making, implementing, and enforcing environmental laws.[7]

In accordance with these goals, TAI builds civil-society coalitions, sets reform priorities, raises public awareness, and assesses government progress. From 2001-2002, TAI launched a worldwide campaign to assess various countries' levels of public participation and progress towards sustainable development.[8] The methodology included review of planning documents, legislation, and court cases; interviews with government officials and non-governmental organizations ("NGOs"); questionnaires, requests for information and media analysis. These criteria were compiled and assessed to determine how well public authorities provide (1) access to environmental information; (2) access to decision-making affecting the environment; and (3) access to justice and remedies.[9]

By creating a more standardized method of assessing environmental governance, TAI hopes to identify the full range of access to environmental information, participation, and enforcement in countries across the world. These studies are steps towards creating a worldwide standard for measuring and promoting sustainable development. A finding that TAI's assessment criteria are accurate and reliable[10] could help governments identify and remedy environmental problem areas, as well as better notify the population of these potential situations. While such methods are commonly used to assess education, health, and the economy, this proposed environmental application is innovative and challenging, especially given the complications inherent in establishing standard environmental indicators.[11] Previous efforts at creating standardized environmental criteria include the Environmental Sustainability Index,[12] State of the Environment Reports,[13] the Human Development Report,[14] the World Bank governance indicators,[15] and the Wellbeing of Nations survey.[16]

TAI's pilot assessment evaluated nine countries and relied on more than 100 indicators, 79 of which were applied by all or most of the national teams. An international team[17] created these indicators, formed the methodology, and identified sources that might provide comprehensive data.[18] Teams then began individual assessments of their pilot countries: Chile, India, Mexico, Thailand, the United States, Hungary, Indonesia, South Africa, and Uganda. Most of these assessments were completed in just a few months and were fairly affordable. Some assessments even resulted in constructive dialogues with national governments regarding ways to improve performance, as well as access to information.[19] The most significant result, however, seemed to be TAI's comprehensive dissection of where each nation's problem spots exist and how these issues might be addressed.

TAI found that many countries, including the United States, had strong legal provisions establishing open access to environmental information, but demonstrated weak implementation of these laws. Since "government bureaucrats and agencies have wide discretion to decide what information is secret, what to share, how to share it and with whom,"[20] it is often difficult for citizens to obtain information about their country's environmental performance. This lack of access to information was especially true in Mexico, Hungary, and Thailand. TAI found that the excessive ambiguity in these countries' legislation and the limited access to definitions and statutory interpretation created a situation where the average citizen would have tremendous difficulty comprehending the system of environmental reporting.[21]

*Melissa Dasgupta is a JD, expected graduation in 2005, American University, Washington College of Law

TAI Test Pilot Assessment Program

In its pilot assessment, TAI attempted to determine how sustainable development and environmental compliance are being treated around the world. TAI did this by analyzing nine countries' opportunities for the public to access environmental information, participation, and legal review.

Public Access to Environmental Information

In evaluating the nine pilot countries,[22] TAI assessed how these countries differed in their ability to disseminate information effectively and quickly. Specifically, TAI compared South Africa's response to a cholera outbreak in 2000 with India's response to a liquid gas petroleum storage tank accident in 2001, and analyzed how and why these responses differed in effectiveness.

To determine whether a country provided effective access to environmental information, TAI assessed the responsiveness of authorities to requests for information, the extent of active information dissemination, whether information was provided in a range of formats, and the timeliness and coverage of information provided both during and after emergencies. These criteria were also analyzed regarding clarity of content, frequency of reporting, and breadth and coordination of coverage.[23]

"The Access Initiative supports the premise that "good governance" values such as transparency, access to information, voting rights, and public accountability have a direct effect on a country's level of environmental compliance."

Most countries were proficient at disseminating information regarding air pollution, but only the United States and South Africa were also successful at disseminating information about drinking water.[24] Other countries such as Hungary and Indonesia proved unsuccessful due to inefficient government procedures and inconsistent data collection. The problem of inconsistent data collection makes standardizing reports, such as the State of the Environment Reports mandated by the Aarhus Convention,[25] difficult to rely on. Even so, the mere fact that these reports exist exhibits a government's attempt at disseminating information to its citizens. Of countries participating in the pilot assessment, only the United States and Indonesia do not consistently produce these reports.[26]

TAI discovered that the most difficult information to access was that concerning pollution at industrial facilities. Most countries surveyed did not make this information available to the public even though TAI found that they all collected data on industrial compliance with air and water laws.[27] Countries provided varying explanations as to why they either released the collected data or kept their findings secret. Mexico, South Africa and Uganda consider this information a matter of complete corporate privacy and do not release it to the public. Indonesia, while failing to disclose specific information to the public, still rates industrial facilities on their environmental compliance. Conversely, the United States is on the forefront of emissions reporting and it requires industrial facilities to submit Toxic Release Inventories.[28] Hungary and Mexico are working toward a similar system of documenting industrial pollution.[29] Another source of environmental information is the use of environmental impact statements throughout the world.[30]

Dissemination of information is especially important when environmental disasters occur. A government's ability to disseminate information quickly and react appropriately will have a huge effect on public safety and security. TAI's studies showed that governments react quicker to large-scale disasters where there is a high media presence, versus smaller, isolated incidents receiving little media exposure. Researchers found, however, that once the crisis passed, governments are ineffective at providing information about the long-term consequences and impacts of these emergencies.[31]

Case Study: South Africa and India's Access to Environmental Information

In order to assess government information dissemination during emergency situations, TAI compared the South African government's response to a cholera outbreak in 2000 with the Indian government's handling of a liquid gas petroleum storage tank explosion in 2001. TAI distinguished South Africa's quick and effective response from India's lack of efficiency and inability to follow its own environmental laws. As a result, TAI gave South Africa a higher score in the assessment.

TAI rated the South African government's response to a cholera outbreak during the summer of 2000 as "strong."[32] When the price for tap water rose to excessive heights, many South African citizens were unable to afford their water bills and began drinking river water, which was plagued by a poor waste management system and regional flooding. These factors combined to create 58,000 cases of cholera and 122 deaths.[33] The government immediately and effectively responded to the situation by employing its own machinery, as well as seeking help from international sources. By the end of the crisis, the World Health Organization complimented the South African government for keeping death rates below 0.5% of reported cases – the lowest death rate ever reported in South Africa during a cholera outbreak.[34]

Because cholera is a disease that demands immediate response, this crisis was an opportune moment to observe the

South African government's ability to respond to an emergency situation. "By responding immediately, we increase our chances of containing cholera. Through prevention and education, we also can reduce the risk of the disease spreading," said Habiba Bihi of the American Red Cross.[35] South Africa specifically addressed the situation by convening emergency meetings among government officials, and allocating $82.5 million for water and sanitation projects in Kwazulu-Natal province. Other decisions included opening rehydration centers to prevent more deaths, sending South African National Defense Forces to rural areas with freshwater tankers, and treating, as well as quarantining, those infected with cholera. The government then took preventative steps such as training volunteers to teach affected villagers about cholera prevention, detection, water safety, and hygiene.[36]

TAI compared South Africa's response to that of the Indian government when a liquid gas petroleum storage tank exploded in 2001 at Flex Industries in Gwalior, India.[37] Even though India had laws in place requiring the government to notify the population of threats such as this one, the government took no action after the explosion. Although this case involved a smaller risk to fewer people than what was encountered in South Africa, TAI rated India's response as "poor" because of the government's inability to react to an emergency or even to follow its own laws.[38] Interestingly, there was a discrepancy in news coverage between the two disasters – South Africa received extensive media attention whereas India's exposure was limited.

Although the best situation would have been for the two governments to have taken steps to prevent the disasters before they even occurred, TAI determined that South Africa's quick and effective response was still commendable, and was one step closer to sustainable development.

Public Participation in the Legislative Process

TAI assessed how the pilot countries allowed for public participation, and for the public to learn about the government's environmental decisions. Assessment criteria for public participation in environmental decision-making included reviewing the existence of opportunities for citizens to participate and the ability of the public to learn not only about these opportunities, but about the outcome of environmental deliberations. TAI also assessed the inclusiveness of consultation and whether notification of the ability to participate was timely.[39]

Legally and constitutionally, almost all of the countries surveyed did not explicitly provide for public participation rights in their legal frameworks. Thailand is the only country that specifically allotted a constitutional right for citizens to participate. Mexico established broad constitutional guarantees for public participation; however, the procedures are so tedious and exhausting that the objective of participation is often lost in the process.[40] Most other countries surveyed either excluded certain groups of people from participating in these environmental discussions, did not require public consent for economic and developmental natural resources decisions, or lacked adequate provisions for participation at different stages of the decision-making cycle. While many of these governments articulated that they approved of the idea of the public participating in the creation of government documents, such an articulation alone does not hold the binding authority of a constitutionally enumerated right.

Judicial Review

TAI also assessed whether countries' laws allowed the public to use administrative or judicial review to voice their concerns vis-à-vis how environmental policies were being developed or implemented. In assessing the ability of legal review, TAI looked at legal standing, affordability of legal help and fees, and the presence and diversity of mechanisms for dispute resolution and remedy. Countries receiving quality assessments had legal review systems that were inclusive and clear as to the legal mandates to disclose information and as to the legal definitions of environmental information in the public domain.[41]

"TAI found that many countries, including the United States, had strong legal provisions establishing open access to environmental information, but demonstrated weak implementation of these laws."

Once information is available, and there is a legal mechanism by which the public can participate, countries must also create an adequate enforcement structure in order to protect such rights. TAI researchers found this to be the weakest element across the board of the three access principles. Most countries created laws to allow public participation, yet had no binding system of review. In fact, the rights and laws created are often so ambiguous that they are not legally enforceable. Even laws that are clear tend to be riddled with exhaustive standing requirements and other administrative obstacles, making them void of any practical application. Researchers found that "in less than half the case . . . assessed was the public able to use administrative or judicial review to contest how national or regional environmental policies were made."[42] In fact, courts and administrative agencies often had complete authority and discretion over huge decisions regarding logging, mining, grazing, and other huge resource concessions. This lack of public participation is frequently an indication of corruption and tends to trivialize the concept of judicial review. Certainly, it is nearly impossible to enforce environmental laws when even the courts cannot be trusted.

Some countries are helpless in enforcing public participation laws due to gross inefficiencies, exhaustive administrative obstacles, and the high prices of adhering to these ineffective procedures. These inefficiencies can inadvertently serve as complete barriers to judicial review. For example, fees to register an environmental case can cost more than 50% of the average annual income of a Chilean citizen and more than 20% of the average annual income of a Hungarian citizen.[43] While South Africa has an established government-sponsored program which provides free legal assistance to the poor, most other countries have no such outlets for lower income citizens. However, Thailand and the United States have large networks of pro-bono lawyers, which is a significant step towards access to review.[44]

TAI's Findings and How This Information Can Be Applied

TAI's findings show that without adequate data gathering, public access to information, or public participation in decision-making, few people will have the luxury of judicial review. One major step toward improving this information dissemination and providing adequate judicial review for all citizens, regardless of income or country, is to create international standards by which environmental concerns can be measured and benchmarked. Both the United Nations Environment Programme[45] and the Aarhus Convention[46] stress the need to maintain a central environmental information service and commit to a practice of early consultation with stakeholders on environmental decisions. However, this alone may not be enough. To avoid the inefficiencies of bureaucracy which seem to slow the process of obtaining quick and effective results, governments will need to improve their capacity by continuously training staff and civil servants regarding new legislation and how to implement it. TAI found that only two countries were effective in training staff on new rules regarding the dissemination of environmental and public participation.[47]

Though ambitious, these steps are necessary to create standardized environmental enforcement across the world. However, the high cost of such compliance makes it exceedingly difficult for poorer countries, such as Chile and Uganda, whose environmental information systems are completely supported by donor assistance, to adequately comply with these expensive necessities.[48] Due to the rising cost of such implementation, the business world's participation and support would greatly contribute to the realization of TAI goals. In addition to industries themselves, organizations that provide financing for industrial projects can also influence public participation in the decision-making process.

TAI noted that other successful methods of promoting good governance and environmental compliance have been protests, media coverage, NGO participation in high profile litigation, and negotiation with government officials regarding allocation of funding and education. In fact, governments in South Africa, Chile, Hungary, India, Mexico, and Thailand all support environmental education.[49] Yet, oftentimes this education comes not from the government, but from the dedication of NGOs. Furthermore, countries differ greatly in their openness to NGO participation. While South Africa is extremely open to NGO input and contributions, other countries, such as Chile, Hungary, Indonesia, Uganda, and India, have excessive registration requirements or restrictions on foreign funding for NGOs.[50] This often results in stifling the very impetus of public access to information, participation, and review.

After viewing the many results and insights of TAI's assessment, we are reminded of the balancing act present in every government throughout the world. Governments are forced to press forward with important and crucial interests such as environmental safety, while battling inefficiency, corruption and a lack of funding. Often times the very administrative systems set up to remedy the problems tend to stand in the way of progress by creating exhaustive procedures and impossible goals. This is why programs and research such as TAI prove invaluable.

"Most countries created laws to allow public participation, yet had no binding system of review. In fact, the rights and laws created are often so ambiguous that they are not legally enforceable."

Without NGOs and other such organizations to take on this work, there would be less reporting of necessary information, making the crucial step of solving these identified problems exceedingly difficult.

Applying These Lessons to Good Governance in the United States

While TAI's assessment and suggestions are instructive, the United States government provides a progressive model to understand the interplay of various forces and the balancing act that results. Although public participation in governance seems to be the answer to many societal problems, specifically those dealing with the environment, it also creates an inevitable conflict between efficiency and fairness. Despite the fact that various types of governments and systems manifest this conflict differently, the United States illustrates some of the nuanced challenges that still exist, even in the face of both democracy and environmental regulation.

While President Bush expressed his opinion that "the American people are using their money far better than the government would have,"[51] many believe that a strong regulatory system is the only way to balance both fairness and efficiency.

This is why the United States has established such a broad administrative system with such strong regulatory authority. While many people dislike big government, most still want the freedom of safe streets, welfare, clean water and clean air. This tension between a laissez-faire economy and a system that protects public health and the environment continues to be grappled with in the United States and throughout the world.

The American regulatory system addresses this tradeoff in various contexts and venues, such as in Congress and the various executive agencies. While Congress creates the legal foundation for most agency policy through legislation, executive agencies promulgate the rules that often fill the gaps. These agencies interpret laws, promulgate regulations, and form a powerful element of the federal government.[52] Because the President appoints the heads of most agencies, agencies' policies often change with new Administrations. This is significant because agencies have a fair amount of discretion in making rules.

"Without broad-based public access to information, the transparency with which the United States government prides itself could be slowly eroding."

One of the central cases defining agency discretion is *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.*[53] In *Chevron*, the court exercised judicial restraint by giving "deference" to an agency's interpretation of an ambiguous statute. The court set out a two-part test in making this decision. The first is whether the statute is ambiguous. If the statute is not ambiguous, courts will nullify any interpretation that is contrary to the plain meaning of the statute. If the statute is ambiguous, the court will apply the second test, which is whether the agency's interpretation is reasonable.[54] In practice, this means that so long as agencies can show a rational basis for an interpretation, a court will likely hold that the given interpretation is reasonable and thus within the agency's discretion. The *Chevron* standard is far from difficult to show and provides a considerable amount of leeway for various different readings of a particular statute. This ability to make changes in rules and interpretations with minimal supervision by the judiciary allows agency actions to change with the appointment of a new agency head or the election of a new President. Thus, aside from the Presidential election process and the notice and comment procedures of the Administrative Procedure Act,[55] the American people are generally unable to affect the majority of agency decisions. While broad power is often necessary for the functioning of an agency, Americans are faced with an inability to affect changes in regulations and policies that often have far-reaching ramifications in their lives.

One of the current concerns outlined in TAI's analysis of the United States involves the effects of giving agencies such discretion. Pursuant to national security and the need to prevent terrorist attacks like that of September 11, 2001, U.S. Attorney General John Ashcroft issued a memo[56] in October of 2001. The memo instructed agencies to use a higher standard of secrecy in regard to the Freedom of Information Act ("FOIA").[57] TAI noted the large effect this would have on the American population, as nearly 2 million FOIA requests were filed with federal agencies during the fiscal year 1999.[58]

While this new standard of secrecy impacts access to information uniformly, it also affects many environmental laws such as the Emergency Planning and Right-to-Know Act ("EPCRA").[59] Title III of the Superfund Amendments and Reauthorization Act created EPCRA with the idea of encouraging emergency planning for chemical accidents. EPCRA's four components are Community Right-to-Know reporting, Emergency Planning and Notification, Emergency Release Notification, and Toxic Chemical Release Inventory reporting.[60] This scheme of providing local governments and the public with information on chemical hazards in their communities constitutes an important element in TAI's framework.

TAI noted that in October 2001, the Environmental Protection Agency removed information from its website regarding Risk Management Plans in the event of a chemical spill. While this information merely informed workers and communities about potential consequences and ways to avoid chemical spills,[61] it was considered a security risk, precluding public access. Though the interest of national security is obviously paramount, many Americans are concerned that the power of the people may be getting lost in administration and security. TAI expressed concern about the ability of the United States government to restrict the dissemination of information in the interest of national security. TAI then recommended advocating for a constitutional amendment that would solidly protect the public's right to information.[62] While few of the pilot countries have constitutional protections regarding access to information, TAI considers a constitutional guarantee to be "the most immutable means of ensuring public access to information."[63]

Without such access, the transparency with which the United States government prides itself could be slowly eroding. While most Americans are not aware of how powerful or how discretionary agencies can be, this is where many of the American transparency battles are fought. On one side is the argument for an efficient and secure administration and on the other is the argument for fairness, participation, and access to information. At the end of the day, America's system of gover-

nance is not the embodiment of efficiency and is not always fair, but actually a bureaucracy that balances these goals, all the while making slow progress. As transparency is reduced, efficiency, security, and progress will increase, but fairness and public participation will be compromised, having an adverse effect on sustainable development and other national goals. While the extent of this compromise and the long-term ramifications in America are yet to be seen, countries across the world and throughout history have faced the same tradeoff. Winston Churchill addressed this dilemma through his statement "democracy is the worst form of government except for all those others that have been tried."

However, aside from the reduction in U.S. transparency since 2001, the high discretion of agencies and the time consuming processes, the American people still have more freedoms than most other citizens of the world. With continued TAI-type assessments and evaluations of the actual levels of transparency and the effects on environmental compliance, Americans can take steps toward sustainable development. The United States illustrates how a country must first have the machine of governance working in order to allow objectives such as environmental compliance to thrive. Yet, the degree of transparency and the degree to which people participate in the government within the United States now and in the future will likely have a substantial impact on United States' progress toward sustainable development.

Conclusion

Because of work conducted by organizations such as TAI, the world community is better equipped to build a framework where environmental variables are assessed on a common scale. Additionally, the reports and recommendations produced by TAI are invaluable to each country assessed because they provide constructive criticism concerning *how* to score well in sustainable development. The analysis focuses on good governance as one of the essential foundations of environmental compliance and creates a progressive formula for success. Yet obstacles are abound and application will always be more challenging than recommendation. As evidenced in the above analysis of the United States, even a country that prides itself in both democracy as well as having started the environmental movement has many challenges ahead.

While TAI provides an amazing service to the world population by generating this data, more studies will likely be necessary before one consistent measuring standard is adopted worldwide. Some possible extensions of TAI could include studying more countries, making the studies broader and more exhaustive, and taking the next step of advocating recommendations in various countries. If the world can establish a common standard of environmental compliance assessment, it will be that much closer toward creating an enforceable international legal framework for sustainable development.

Endnotes:
The Access Initiative

[1] David Bacon, *Mexico: Rebellion on the Border*, (1996), *at* http://dbacon.igc.org/Mexico/border11.htm. *See also* Commission for Environmental Cooperation of North America, *Metales y Derivados Final Factual Record (SEM-98-007)* (outlining the scientific details regarding the children in Tijuana, Mexico in accordance with Article 15 of the North American Agreement on Environmental Cooperation), *available at* http://www.cec.org/files/pdf/sem/98-7-FFR-e.pdf (last visited Mar. 5, 2004); Jeff Spurrier, *Border Stories*, World Hum: Travel Dispatches from a Shrinking Planet, Aug. 15, 2001, *at* http://www.worldhum.com/story.cfm?SID=62 (last visited Mar. 5, 2004).

[2] Bacon, *supra* note 1.

[3] *Id.*

[3] The Access Initiative, Brochure (Jan. 2004), *available at* http://www.accessinitiative.org/pdf/brochure_Jan04.pdf.

[5] The Access Initiative, *available at* www.accessinitiative.org (last visited Feb. 15, 2004). *See also* The Environmental Law Institute, *The New Public: Globalization of Public Participation*, (Carl Bruch ed., 2002).

[6] *Rio Declaration on Environment and Development*, June 14, 1992, 1992 WL 602558,UN Doc. A/CONF.151/5/Rev. 1, *available at* http://www.unep.org/Documents/Default.asp?DocumentID=78&ArticleID=1163 (stating that environmental issues are best dealt with through extensive public participation at the state and national levels, citizen access to relevant information concerning the environment, and access to judicial and administrative sources). *See also* World Resources Institute et. al, *Closing the Gap: Information, Participation and Justice in Decision-making for the Environment*, (2002) (explaining other declarations and agreements such as the The Inter-American Strategy for the Promotion of Public Participation in Decision-making for Sustainable Development and the East Africa Community Environmental Memorandum of Understanding).

[7] World Resources Institute et. al, *supra* note 6.

[8] World Resources Institute et. al, *supra* note 6.

[9] World Resources Institute et al., *World Resources 2002 – 2004: Decisions for the Earth: Balance, Voice and Power*, 48 (2003), *available at* http://pdf.wri.org/wr2002fulltxt_047-064_chap03.pdf.

[10] The Earth Negotiations Bulletin ("ENB"), *Implementing Principle 10: The Access Initiative, Selected side Events at WSSD Events convened on Thursday, 30 May 2002*, 8 WSSD PC-IV (2002) *available at http://www.iisd.ca/2002/pc4/enbots/may30.html* (showing that TAI is quickly gaining recognition, both from the International Institute for Sustainable Development and the United Nations Development Programme as they included an article in their publication about a speech regarding TAI by Frances Seymour of the World Resources Institute).

[11] *Id.* (explaining that there are few widely accepted environmental indicators and that the evaluation of environmental governance is more difficult to measure because it involves not only environmental sustainability, but also human rights, political freedoms, transparency and more).

[12]Center for International Earth Science Information Network, *Environmental Sustainability Index*, *at* http://www.ciesin.columbia.edu/indicators/ESI/, (last visited March 27, 2004) (explaining that the Environmental Sustainability Index is an assessment of 142 countries' environmental governance, that creates cross-national comparisons of environmental progress in a systematic and quantitative fashion, conducted by the World Economic Forum, Yale University and Columbia University).

[13] National Council for Science and the Environment, *State of the Environment Reports*, *available at http://www.ncseonline.org/About/*,

(last visited March 27, 2004) (providing these reports with a goal of a "society where environmental decisions are based on an accurate understanding of the underlying science, its meaning, and its limitations. In such a society, citizens and decision makers receive accurate, understandable, and integrated science-based information. They understand the risks, uncertainties, and potential consequences of their action or inaction.").

[14] United Nations Development Programme, *Human Development Reports*, *available at* http://hdr.undp.org/reports/global/2003/, (last visited March 27, 2004) (explaining that the Human Development Report assesses various measures of democracy and good governance throughout 173 countries).

[15] The World Bank Group, *Governance & Anti-Corruption*, *available at* http://www.worldbank.org/wbi/governance/index.html, (last visited March 27, 2004) (explaining that the World Bank calculates the good governance indicators of 175 countries, including political process, civil liberties, political rights, and independence of the media).

[16] IUCN—The World Conservation Union, *The Wellbeing of Nations at a Glance, available at* http://iucn.org/info_and_news/press/wonback.doc, (last visited April 1, 2004) (explaining that the Wellbeing of Nations Survey is conducted by the International Development Research Centre, IUCN—The World Conservation Union, and other research institutes and that it encompasses 180 countries' environmental conditions, including human rights and ability to participate in the government's decision-making process).

[17] The team was convened by the World Resources Institute (U.S.), the Environmental Management and Law Association (Hungary), Corporacion PARTICIPA (Chile), Thailand Environmental Institute, and Advocates Coalition for Development and the Environment (Uganda). World Resources Institute et al., *supra* note 10.

[18] World Resources Institute et al., *supra* note 9, at 50.

[19] *Id.*

[20] *Id.* at 55.

[21] *Id.*

[22] Chile, India, Mexico, Thailand, the United States, Hungary, Indonesia, South Africa, and Uganda. *Id.*

[23] *Id.* at 50.

[24] In light of the recent lead crisis in the Washington, D.C. water supply, one can only imagine what kinds of systems exist in countries that scored low in this area.

[25] The Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June 25, 1998, art. 5, 8, *available at http://www.unece.org/env/pp/documents/cep43e.pdf*, (last visited April 8, 2004) (establishing rights of the public with regard to obtaining environmental information and mandating that "each Party shall, at regular intervals not exceeding three or four years, publish and disseminate a national report on the state of the environment, including information on the quality of the environment and information on pressures on the environment."). *See generally* Europa, *Europa – Environment – The Aarhus Convention*, *at* http://europa.eu.int/comm/environment/aarhus/ (last visited March 28, 2004).

[26] World Resources Institute et al., *supra* note 9, at 50 (explaining that the United States stopped producing meaningful federal-level reports in 1997 and Indonesia produced only one such report in the past decade, in 1998).

[27] *Id.* at 55.

[28] EPA, *Toxic Release Inventory (TRI) Program*, *at* http://www.epa.gov/tri/ (last visited March 28, 2004) (explaining that TRI is a publicly available EPA database that contains information on toxic chemical releases and other waste management activities reported annually by certain covered industry groups as well as federal facilities. This inventory was established under the Emergency Planning and Community Right-to-Know Act of 1986 ("EPCRA") and expanded by the Pollution Prevention Act of 1990).

[29] World Resources Institute et al., *supra* note 9, at 56.

[30] EPA, *EPA-Compliance and Enforcement –National Environmental Policy Act ("NEPA")*, *available at* http://www.epa.gov/compliance/nepa/index.html (last visited March 28, 2004) ("The National Environmental Policy Act (NEPA) requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions. To meet this requirement, federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS).").

[31] World Resources Institute et al., *supra* note 9, at 50.

[32] World Resources Institute et al., *supra* note 9, at 50.

[33] Stephanie Kriner, *Cholera Spreads Through South Africa Townships*, DisasterRelief.org. (2001), *at* http://www.disasterrelief.org/Disasters/010309choleraSA/.

[34] Pat Sidley, *Cholera Sweeps Through South African Province,* 322 British Medical Journal 71 (2001), *available at* http://bmj.bmjjournals.com/cgi/reprint_abr/322/7278/71/a.pdf.

[35] *Id.*

[36] Kriner, *supra* note 34; Sidley, *supra* note 34.

[37] World Resources Institute et al., *supra* note 9, at 50.

[38] *Id.*

[39] World Resources Institute et al., *supra* note 9, at 50.

[40] *Id.*

[41] *Id.*

[42] *Id.* at 50.

[43] World Resources Institute et al., *supra* note 9.

[44] *Id.*

[45] *See* United Nations Environmental Programme, *UNEP*, *available at* http://www.unep.org (last visited on March 28, 2004).

[46] Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters, June 25, 1998, *available at* http://www.unece.org/env/pp/treatytext.htm (last visited on April 8, 2004).

[47] World Resources Institute et al., *supra* note 9.

[48] *Id.*

[49] *Id.*

[50] World Resources Institute et al., *supra* note 9.

[51] President George W. Bush, State of the Union Address (Jan. 20, 2004).

[52] Michael Asimow, et al., *State and Federal Administrative Law, 2d.Ed.,* (West Publishing ed., 1998).

[53] *Chevron U.S.A. Inc. v. Natural Resources Defense Council, Inc.,* 467 U.S. 837, 104 S.Ct. 2778 (1984).

[54] *Chevron,* 467 U.S. at 837.

[55] Administrative Procedure Act, 5 U.S.C. Subchapter II, §§ 551-559.

[56] World Resources Institute, *supra* note 9.

[57] The Freedom of Information Act, 5 U.S.C. § 552.

[58] World Resources Institute, *supra* note 9.

[59] 42 U.S.C. § 11001 et seq. (1986).

[60] Business & Legal Reports, *Regulatory Analysis—Emergency Planning and Response*, *at* http://enviro2.blr.com/topic.cfm/topic/426.

[61] For more information about communities in the United States *see* EPA, *Environmental Justice, at* http://www.epa.gov/oswer/ej/index.html (last visited Feb. 15, 2004) (explaining "Concern that minority populations and/or low-income populations bear a disproportionate amount of adverse health and environmental effects, led President Clinton to issue Exec World Resources Institute,

CITES in Africa:

An Examination of Domestic Implementation and Compliance

*by Yvonne Fiadjoe**

Introduction

The Convention on International Trade in Endangered Species ("CITES") has been relatively ineffective in Africa as a result of minimal enforcement and compliance.[1] As a non-self-enforcing treaty, CITES requires that State Parties enact domestic legislation to enforce the provisions of the Convention. Even though non-compliance with CITES is not unique to the African region,[2] there are several factors peculiar to the region that exacerbate the problem of implementation of these provisions. These problems must be addressed simultaneously from geographic, social, political, and economic angles.

Because of the importance of species preservation and the prominence of international environmental law in modern legal systems, African countries ought to include CITES provisions in their domestic laws. To ensure the effectiveness of the Convention, African countries must domestically enforce all CITES provisions.

This paper is divided into four parts. Part One provides a brief overview of CITES and background to the African situation. Part Two details some of the problems which have impeded the implementation of CITES in Africa. Part Three then discusses recommendations and proposals to ensure compliance with CITES in signatory countries of the African region. Part Four provides a conclusion to this study.

Part One: Overview of Cites & Background to the African Situation

CITES is an international conservation agreement providing guidelines for trade[3] in endangered species.[4] CITES entered into effect in July 1975[5] and currently has 152 signatories.[6] The Convention[7] has been regarded as the *Magna Carta*[8] for wildlife.[9]

CITES[10] was created[11] in order to protect[12] endangered species from extinction.[13] To achieve this aim, CITES categorizes species into three appendices[14] indicating the actual numbers of a species and how trade affects the species.[15]Different levels of protection are accorded to each Appendix.[16] Appendix 1 species are those "threatened with extinction which are or may be affected by trade."[17] As a result, trade in Appendix 1 species is only authorized in exceptional circumstances. Appendix 2 species are those that are not immediately threatened with extinction, but may become so unless trade is restricted.[18] Therefore, trade in species listed in Appendix 2 is subject to restrictions in order to prevent utilization that is "incompatible with their survival."[19] Species protected under Appendix 3 are species that require regulation.[20] These species are not immediately threatened with extinction, but still require regulation in order to prevent exploitation.[21] Trade in species categorized under the three appendices is restricted unless it is in accordance with the provisions of the Convention.[22]

Because CITES is a non-self-executing treaty, a State party must usually adopt legislative or other measures to implement the Convention.[23] Since 1992,[24] the laws of 136 countries have been reviewed under the National Legislation Project ("NLP"), a system for reviewing and evaluating domestic measures to implement CITES.[25] In determining the level of compliance, the NLP looks at four criteria:[26] (1) whether there has been legislative designation of authorities responsible for implementing the Convention;[27] (2) whether legislation addresses all species listed in the Convention;[28] (3) whether domestic legislation expressly prohibits illegal trade and designates specific departments and agents responsible for enforcing the Convention;[29] and (4) whether domestic legislation facilitates[30] the confiscation or return of species that are illegally traded.[31]

> *"In reality, implementation without subsequent enforcement has the same effect as no implementation at all."*

After this assessment is made, countries are classified into one of three categories. Countries accorded Category 1 status are those that have adequately implemented all necessary legislation to ensure compliance with CITES. Category 2 countries are those that have implemented some legislation, but need more to meet the legislative requirements.[32] Category 3 countries are those that have not met the requirements of CITES.

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Despite the various categorizations, the effectiveness of CITES does not depend on whether countries have enacted the necessary legislation, but on whether the legislation is being enforced. Nevertheless, attaining Category 1 status is an important first step in the quest for compliance and effectiveness.[33]

The African Situation

The success of CITES is often determined by the number of animals listed in the appendices, the number of member countries in a region, the number of proposals submitted, and the number of permits issued.[34] If these were the only determinants of compliance with CITES in Africa, then implementation of CITES could be considered a resounding success. In fact, 49 out of 52 African countries are State Parties to CITES, comprising 32% of the Convention's signatories.

However, the seminal indicator of whether the treaty is effective is not accession or ratification alone, but rather the implementation and enforcement of the treaty provisions within a country.[35] The dual process of implementation and enforcement must not be decoupled. To do so would render the treaty ineffective. In reality, implementation without subsequent enforcement has the same effect as no implementation at all. The key to enforcement is in actual 'on-the-ground' compliance. Therefore, the success of CITES should not be determined by the number of State parties to the Convention, but by the actual compliance with its provisions. In this respect, many African countries have failed to fully implement the CITES provisions into domestic legislation and enforce those provisions enacted.[36]

"Recognizing the inherent weaknesses of CITES, African States have resorted to several other initiatives designed primarily to strengthen compliance with CITES."

Of the 49 African countries that are signatories to CITES, only five countries are classified as Category 1 countries.[37] Because African countries have the largest species populations in the world (for example, 40% of the 4,800 plant species located in the deserts of South Africa can be found nowhere else in the world), it is of critical importance to take note of these trends and to discern ways in which the problem may be addressed.

Twenty countries, or 41%, have been accorded Category 2 status countries.[38] Even though limited implementation by these countries is better than no implementation at all, the effectiveness of the Convention is greatly undermined by such minimal compliance. For the Convention to be effective, there must be full implementation of the necessary legislation coupled with compliance.

The majority of African countries fall under the Category 3 rubric. These twenty-four countries, or 45%, need to strengthen their initiatives to ensure full compliance with the Convention. Considering that the vast majority of the countries in this category ratified the Convention more than fifteen years ago,[39] it seems that there are fundamental problems that may need to be addressed. In fact, this trend may be indicative of the existence of collective problems that are impeding the implementation of the CITES in Africa.

Failed Initiatives

Recognizing the inherent weaknesses of CITES, African States have resorted to several other initiatives designed primarily to strengthen compliance with CITES.

The Monitoring the Illegal Killing of Elephants ("MIKE") system is one such initiative.[40] The basic premise of the MIKE system is to monitor illegal elephant hunting and determine the impact of such hunting on elephant species. This system entails data collection at designated sites in selected African and Asian States, including a collection of elephant population data,[41] reporting of illegal hunting, and deployment of law enforcement officers to detect illegal hunting and trade.[42]

One of the major shortcomings of the MIKE system, though, is that it does not provide a mechanism to ensure actual compliance with CITES. It only provides data on elephant species. Furthermore, the complexity of the system requires huge amounts of funding for it to be successful. Recognizing that the elephant is only one of several species listed in CITES appendices, it is very difficult to justify expending such large amounts of funds on one species.[43]

The 1994 Lusaka Agreement is another initiative that has impacted CITES.[44] This Agreement entered into force in 1996, and provided for the development of wildlife law enforcement officers recruited from National Bureaus.[45] These officers were a part of the Lusaka Agreement Task Force ("LATF"), which was primarily responsible for conducting cross-border investigations into wildlife trade at the requests of the National Bureaus. The LATF's mandate was very wide, permitting them to take part in undercover operations and move freely between States without visas and entry restrictions, subject to the consent of Parties.

The Lusaka Agreement signaled a positive step by African nations to curtail illegal trade, but it was not successful. Although it was open to accession by all African States, only six have acceded.[46] Issues of sovereignty were of great concern to State Parties. Furthermore, as with most agreements in Africa, the Lusaka Agreement had severe funding problems. To date, all these factors have severely crippled the effectiveness of the Lusaka Agreement.

Subsequently, the South African Development Community[47] developed a protocol on wildlife conservation and law enforcement. This protocol basically prescribes an alternative for wildlife law enforcement.[48] The Protocol does

away with the issue of cross-border policing, replacing that system with Interpol.

A problem with African countries' implementation of CITES is that they have developed several systems geared towards the same aim. In so doing, they spread their finances and human resources too thin and become jacks-of-all-trades but masters at none. African States ought to focus on the development of one regime and place all efforts into that system. There is no benefit in developing several systems and having a half-hearted reception to each of them.

Part Two: Reasons For Noncompliance

The geographic, political, economic and social structures of African countries have contributed to impeding the implementation of CITES in countries' domestic legislation.[49] In fact, implementation and enforcement of CITES in Africa has been complicated by several factors. Some of these factors include: corruption, the Precautionary Principle, the flexibility of the Convention, lack of financial and human resources, inconsistency between countries in implementing regimes, and in some cases a lack of political will, wars, and internal conflict.[50]

Corruption

A major impediment to the compliance and subsequent effectiveness of CITES is the issue of corruption.[51] The 2003 Global Corruption Report cites several African countries as having serious problems of corruption.[52] The report highlights corruption in various sectors. However, the aspect of greatest interest to this study and the issue of CITES is the corruption in governmental institutions. Regrettably, the institutions designated with the authority to ensure compliance with CITES are often those that have the highest levels of corruption. In Burkina Faso, for instance, a corruption survey indicated that the police are the most corrupt institution in the country. In Senegal, the traffic police, customs officials, and police were identified as the most corrupt institutions. In Benin, the situation is exacerbated by the fact that transit agents help importers avoid controls in transporting illegal goods.[53] It is not unrealistic to expect that the CITES regime cannot function effectively if the very institutions which are to guarantee its effectiveness are themselves in disrepute.

Interestingly enough, only Nigeria, which was cited as having a corrupt governmental institution, has been accorded Category 1 status under CITES. All other countries plagued with serious corruption problems have not been accorded such status under CITES. For example, Mali, which has a serious problem with the mismanagement of public funds as well as an ineffectual judicial system, has received a Category 2 classification. In Mozambique, where corruption is extremely rife, one of the most corrupt agencies is the port system. Mozambique falls within the Category 3 classification.

The pattern of corruption seems to be linked with the many armed conflicts in the region. Conflict tends to provide opportunities for illicit access to natural resources. Such is the case in Eritrea, Ethiopia, Burundi, Rwanda, Somalia, Sudan and the Democratic Republic of Congo ("Congo"). It is interesting to note that Rwanda, Somalia and Burundi, where there have been long-standing wars, have nevertheless all been accorded Category 3 status.

An inextricable link appears to exist between the endemic corruption in Africa and the ability to comply with CITES. The greater the corruption, the lower the compliance categorization.

The Precautionary Principle

The Precautionary Principle is a very contentious principle[54] in international law, because States implement and interpret it differently.[55] The basic premise of the Precautionary Principle is that in the absence of scientific evidence as to the effect of a particular substance or activity, the protection of the environment should be the primary concern.[56] Essentially, the Precautionary Principle recognizes that scientific certainty may often come too late to prevent environmental harm.[57] In this regard, the Precautionary Principle provides a mechanism whereby an environmental harm can be prevented and unnecessary expenditure avoided.

"Regrettably, the institutions designated with the authority to ensure compliance with CITES are often those that have the highest levels of corruption."

Although slightly different definitions have been used to explain the Precautionary Principle, the 1992 Rio Declaration definition is most widely accepted. The Declaration provides that "in order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible harm, lack of scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."[58]

The problem which developing countries have with the Precautionary Principle is that it can be evoked to include additional species in the CITES appendices. Developing countries have resisted the application of this principle, because its application will mean that they must be more diligent in the preservation of wildlife.[59] In some instances, these countries have taken the stance that the imposition of this principle is premised on western ideologies, which fail to consider the peculiar situation of developing nations.

Flexibility

The inherent flexibility of CITES has contributed to the problem of non-compliance.[60] The flexibility of the Convention

manifests itself in several ways. For instance, CITES allows parties to opt out of decisions pertaining to species listings. As a result, the State Party is in no way bound by a new provision.[61] Still, it must be kept in mind that this same mechanism is essential to "keeping all the players in the cooperative process and allowing the regime to bend[62] rather than break."[63]In addition to the opt-out mechanism, CITES provisions themselves are quite flexible. For example, Article VIII, which deals with measures that the parties may impose to enforce the provisions of the Convention, has been interpreted to facilitate the exemption of ranching for trade in listed species. In reality, this type of interpretative flexibility often results in a trade-off, whereby provisions are interpreted liberally in their application, but there is subsequently a stricter listing of species.[64]

"Even though CITES came into force decades ago, several of the provisions of the Convention remain very contentious. Such provisions result in non-compliance and the ineffectiveness of the Convention."

A necessary corollary to the flexibility of the Convention is the down-listing of species.[65] In some instances, State Parties argue that the down-listing of a species will influence the preservation of the species. [66] For example, at a Convention held in Harare, Southern African[67] countries argued that down-listing of ivory allowed them to sell their stockpiles of ivory.[68] They stated, in turn, that the revenue generated from such a sale[69] would be used toward elephant conservation and community development programs. Therefore, they argued, controlled trade of ivory would benefit the preservation of elephants. Although this argument may seem untenable, as it is difficult to understand how depletion of a species may result in its replenishment, one must look at the efforts of African nations to raise such arguments in circumstances where elephant populations are constantly expanding and wreaking havoc (i.e. by trampling crops of peasant farmers). Often, these animals may appear to be more of a nuisance than an asset. Thus, using the species for immediate economic gain as well as domestic consumption[70] seems more viable.[71]

The Provisions of the Convention

Even though CITES came into force decades ago, several of the provisions of the Convention remain very contentious. Such provisions result in non-compliance and the ineffectiveness of the Convention. For example, Article III(2)(d) provides that the importing State must grant an import permit before Appendix 1 species may be traded. The problem with the language of the provision is that it takes power to control a species away from the exporting country, putting control in the hands of the potential importer. Thus, the importer's assessment of the biological status of the species carries more weight than that of the exporting State.

Article III(3)(c) has also raised concern. This provision states that trade in Appendix 1 species must not be primarily for commercial purposes. Although the intention of the drafters to completely restrict trade in order to preserve the species is a good one, this provision does not consider circumstances where commercial trade may benefit the species and even contribute to its preservation.

Finally, Article XIV facilitates the adoption of domestic measures that are stricter than those of the Convention. Although the original intent was to encourage exporting States to strengthen their domestic measures, the provision has often been used by importing nations to curtail trade.[72]

Lack of Financial and Human Resources

In several instances, African countries have reported that their inability to comply with the provisions has not been because of a lack of interest, but rather because of a critical lack of finances. This is clearly problematic, as the entire CITES system is premised on the availability of funds.[73] For example, the basic structure of the regime mandates the creation of a domestic authority to oversee provisions as well as a support system, both of which require adequate funding. Without these structures, the police, customs, other law enforcement agencies, and the populace at large do not have any guaranteed assistance in achieving the provisions of the Convention.

The situation is further aggravated by the fact that in most countries, there are no trained personnel to carry out the provisions of the Convention.[74] For example, customs officials are often untrained about which species are categorized under the three appendices and what trade is allowed or restricted under the Convention. Since personnel are untrained, enforcement capacity is weak. Because enforcement capacity is weak, it is no surprise that illicit trade goes unreported. Several countries have noted that they have neither the resources nor the capacity to comply with these provisions.

In order to resolve the issue of lack of funding, some countries have utilized trade in endangered species as a way of earning money.[75] Such trade in endangered species[76] is considered to be very lucrative.[77] In some instances, trade[78] has flourished[79] under CITES. For example, it is estimated that in 1998, Zimbabwe sold about 82.8 tons of elephant hides.[80] In 1997, Botswana, Namibia, and Zimbabwe earned an estimated $5 million from ivory sales.[81]

Even though it appears that there are short term gains in trading endangered species, the costs to countries that may have to invest more funds in anti-poaching strategies, is far greater in the long run.

Lack of Political Will

Several African countries have suffered from grave political problems.[82] In some instances, government instability coupled with the problems of periodic coup d'états and impending civil wars all make compliance with CITES seem unimportant. For example, in Côte d'Ivoire and Liberia,[83] it is difficult to see how species preservation could ever be addressed in circumstances where the impending war[84] continues to claim human lives.[85] As a result, governments are more concerned with preservation of human life than with species preservation.[86]

Another political problem in many countries is that legislation is often inconsistent, so trade in endangered species is addressed in a fragmented way. For example, there are glaring inconsistencies in permit procedures, sanction provisions, legal definitions and the conservation status of indigenous species. This exacerbates the problem of ensuring compliance, especially since authorities must also battle budgetary and capacity constraints.[87]

Social Problems

Many countries in the African region are faced with unprecedented development and population pressures. In fact, most countries in the Sub-Saharan region expect their populations to double within the next couple decades. Thus, it becomes difficult to balance the management of population growth of both humans and plant or animal species.

Part Three: Recommendations and Proposals

To ensure compliance with CITES, it is imperative that State Parties address the fundamental problems that have impeded the adequate implementation of the Convention into their domestic legislation. The international community must realize that the answer to implementation does not lie in accession to the Convention alone. It also lies in the implementation of infrastructure support systems. To this end, it is suggested that the following measures, where applicable, be invoked to guarantee not only full compliance with CITES, but also to ensure species preservation. The guiding principle of any measure that is implemented must be the ability to comply with such a measure.

Flexibility of the Convention

Even though the flexibility of the Convention has contributed to non-compliance, no amendments should be made.[88] One of the main arguments often used to support amendments is that the provisions of the Convention are outdated. However, the basic structure and framework of the Convention is still a strong one, and for that reason alone, an amendment is not suggested. Perhaps a more tenable position may be to develop new approaches to species preservation within the existing framework.[89]

Lack of Financial and Human Resources

The issue of lack of financial resources can be addressed by utilizing the natural resources present in a country as a way of generating income and earning well-needed foreign exchange. For instance, countries could follow in the footsteps of Kenya and Namibia by promoting eco-tourism. In Kenya, tourism[90] is recorded as being the country's largest foreign exchange earner. Through tourism, governments can inform their local populations that economic gains can only be achieved by preservation of endangered species, rather than by killing off species.

Income might also be generated through taxation in the context of endangered species. Companies responsible for depleting plant and animal resources in endangered species should be taxed accordingly. In Ghana, environmental taxation exists whereby companies that pollute or deplete the environment, such as mining, bauxite, and timber companies, are directly taxed. Additionally, there is indirect taxation, where companies must replant trees felled during their operations or build community facilities such as hospitals, clinics, and markets for the local communities.

"The issue of lack of financial resources can be addressed by utilizing the natural resources present in a country as a way of generating income and earning well-needed foreign exchange."

To address the lack of human resources, governments ought to encourage NGO participation in their initiatives.[91] Many NGOs have professionals well-versed in relevant environmental issues who can play an important role in disseminating information. Basically, governments must enhance cooperation with NGOs and other major groups needed to work as social partners for sustainable development.

Also, governments may sponsor regional and sub-regional workshops that aim to share information about best management practices,[92] develop national legislation and regulations, train customs officials, police the enforcement methods of government entities and civil society groups (for example, the Green Advocates in Liberia[93]), and also utilize training programs through organizations such as the International Network for Environmental Compliance and Enforcement ("INECE").[94]

Lack of Political Will

Many African countries are now attempting to address some of the root causes of environmental degradation through initiatives such as the New Partnership for Africa's

Development ("NEPAD").[95] The NEPAD emphasizes good governance with reference to environmental obligations. Although not yet in force, the NEPAD[96] proposes to deal with the issue of the environment under eight different priority areas: (1) desertification; (2) wetland conservation; (3) invasive alien species; (4) coastal management; (5) global warming; (6) cross-border partnerships; (7) environmental governance; and (8) finance from different angles.

However, markedly absent from NEPAD is any reference to preservation of endangered species. While this issue may be covered under "wetland conservation" or perhaps "cross-border partnerships", the wording of the provisions do not place sufficient emphasis on endangered species. Therefore, endangered species preservation ought to be included as the ninth area of priority intervention in the region. Indeed, African leaders can show true quality of leadership by promoting mandates that support environmental sustainability in all its various facets.[97]

"In Kenya . . . the imposition of criminal sanctions led to a marked decrease in illicit trade and an increased number of persons arrested for violations of the Convention."

Monitoring institutions must also be developed. In fact, it is well documented that environmental agreements work best when they are supported by a strong monitoring component.[98] There are clear examples of the effectiveness of CITES when supported by governmental initiatives.[99] For example, South Africa and Zimbabwe conduct culling programs aimed at maintaining their elephant populations at a level[100] the available habitat can support.[101] By far the greatest threat to elephant populations is poaching.[102] As a result, on June 30 1989, when Tanzania banned elephant[103] hunting by its citizens, the government made it clear that illegal trade activities would not be tolerated. This contributed significantly to curtailing the trade in elephants. For successful enforcement of CITES, one of the first measures is for governments to take a strong stance against illicit trade in endangered species.

Social Problems

It is necessary that education be placed at the forefront of any CITES initiative. This includes education of enforcement agents, but also of local populations. This will inevitably be an essential component of the process of curtailing illicit trade.

Another social measure that could be used is the imposition of criminal sanctions to enforce trade issues. In Kenya, for example, the imposition of criminal sanctions led to a marked decrease in illicit trade and an increased number of persons arrested for violations of the Convention. Also, arrests and indictment for illicit trade will act as a deterrent to smugglers. It is only when the illegal trade is sanctioned[104] that States can ensure high levels of compliance. In so doing, governments will be sending a clear signal to violators that they are serious about controlling the trade in endangered species.[105]

Another way in which State Parties can ensure compliance with CITES is by reviewing current legislation on environment and development to ensure that it addresses present day realities.[106] National conservation legislation should incorporate creative tools and strategies in achieving sustainable legal wildlife trade[107] (for instance, through the use of incentives and the involvement of communities in biodiversity management).[108]

Finally, an effective way of dealing with non-compliance might be the use of trade sanctions.[109] Since 1985, three African countries have been subject to these sanctions. In 2001, Congo was under scrutiny for alleged permit fraud. Rebels were discovered to have issued false CITES documents, which were then used to transport chimpanzees across borders. The chimpanzees were listed on Appendix 2, and as a result, were not to be traded. Congo has not yet complied. However, the other two cases have been successful. In Equatorial Guinea, even though it was not a member of CITES, the Secretariat urged Parties to the Convention to ban all trade in CITES species with the country in 1988. In 1992, Equatorial Guinea acceded to the Convention and the ban was subsequently lifted.[110] In 1999, Senegal was also subjected to a trade sanction. In 2000, this too was lifted.

Part Four: Conclusion

Even though many countries have acceded to the Convention, implementation of the CITES provisions in the domestic legislation of countries in the African region is lacking. Even though this treaty was ratified by some of these countries more than twenty years ago, governments today still require assistance in the implementation of the provisions of the Convention. These countries' accession to the Convention may seem progressive, but upon closer examination, the converse is true. Even where domestic legislation is in place, there may not necessarily be compliance and enforcement.

This study is in no way conclusive. Some of the many issues that still need to be addressed are: (1) what laws have been put in place in Category 1 countries in Africa; (2) the types of enforcement mechanisms utilized in countries; (3) the effectiveness of the enforcement mechanisms; (4) whether legal strategies, such as taxation, can be deployed to assist with a more effective implementation of the CITES Convention; and (5) what mechanisms ought to be used to monitor the effectiveness of CITES.

ENDNOTES: CITES in Africa

[1] *See* Geographic Map of Africa on p.3b for countries of the Continent.

[2] Telephone Interview with Erin Heskett, IFAW (May 20, 2003).

[3] *See* Peter H. Sand, *Transnational Environmental Law: Lessons in Global Change* 237 (1999), *available at* http://www.jura.unimuenchen.de/tel/materials/cactus.html [hereinafter *Sand*].

[4] *See* the Secretariat's website *at* http://www.cites.org (last visited Aug. 8, 2003), (providing official documents on CITES as well as background information on the Convention).

[5] The Convention was signed on March 3, 1973 and entered into force on July 1, 1975. For the full text of the Convention, *see* the Secretariat's website *at* http://www.cites.org/eng/disc/text.shtml (last visited Aug.8, 2003). *Also available at* 993 UNTS 243-438 (1976).

[6] For a list of all contracting parties, *see* http://www.cites.org/eng/parties/alphabet.shtml (last visited Apr. 18, 2003).

[7] For a detailed analysis of the Convention, *see* Simon Lyster, *International Wildlife Law* 239-277 (1985).

[8] *See* Elizabeth N. Layne, *Eighty Nations Write Magna Carta for Wildlife*, 75(3) AUDUBON MAGAZINE, 1973, at 99.

[9] For links to other Multilateral Environment Agreements dealing with wildlife, *see* http://www.law-lib.utoronto.ca/resguide/globall/compliance%20WSSD.htm (last visited July 9, 2003).

[10] For a brief overview of the history of CITES, *see In 2003, 30 Years of International Agreement*, OFFICIAL NEWSLETTER OF THE PARTIES SPECIAL EDITION, March 3 2003, at 2, *available at* http://www.cites.org/eng/news/world/30special.pdf (last visited Aug. 8,2003) .

[11] One of the main bases for the development of CITES was a general acknowledgement and recognition by States that several species faced extinction. *See* Wayne F. King, *The Wildlife Trade in Wildlife and America: Contributions to an Understanding of American Wildlife and Its Conservation* (1978).

[12] *See* K.D. Hill, *The Convention on International Trade in Endangered Species: Fifteen Years Later*, 13 LOY. L.A. INT'L & COMP. L. REV. 231, 245 (1990), (noting that CITES created a trade instrument as well as a conservation document).

[13] For more information on the system adopted by CITES as well as the scope of the Convention, *see* the Yearbook of International co-operation on Environment and Development's website *at* http://www.greenyearbook.org/agree/nat-con/cites.htm (last visited Aug. 3, 2003).

[14] "CITES acts as the ultimate traffic cop, deciding when international trade in certain species, whether the African elephant, jaguar, or exotic birds, can continue unimpeded, when it must slow, and when it must stop entirely to avoid the tragedy of extinction." Ginette Hemley, *International Wildlife Trade-A CITES Sourcebook* IX (1994).

[15] For a list of the appendices as well as the species listed in each appen19dix, *see at* http://www.cites.org/eng/append (last visited Aug.3, 2003). .

[16] *Sand, supra* note 3, *at* 237, (arguing that the approach adopted by CITES in the protection of endangered species is "an unprecedented new approach to co-operation between governments and non-governmental organizations").

[17] CITES, March 3, 1973, art. II, app. 1.

[18] *Id.* at art. II, app. 2.

[19] *Id.*

[20] *Id.* at art. III.

[21] For further information on CITES regulation, *see* the website of the US NGO, Care for the Wild *at* http://www.careforthewildus.org/news/cites.html (last visited Mar. 30,2003) .

[22] CITES, *supra* note 4, art. V.

[23] For further information on the measures States must adopt as well as information on the nature of the treaty, *see* Rosalind Reeve, *Policing International Trade in Endangered Species – The CITES Treaty and Compliance* (2002) [hereinafter *Reeve*].

[24] *See* COP 12, Nov. 13-15, 2002, Doc.28 at 1, *available at* http://www.cites.org/eng/cop/12/doc/E12-28.pdf.

[25] *Reeve*, *supra* note 23.

[26] For an explanation of the basic requirements of these criteria, *see* COP 12, *supra* note 24, para. 2, p. 1.

[27] *Id.*

[28] The legal basis for this requirement is obtained from the provisions of arts. II, III, IV, V, VI and VII.

[29] Art.VIII(1)(a) provides the mandate to do this.

[30] For a discussion on the position in South Africa dealing with whether domestic legislation facilitates implementation, *see Notes on the Basic Requirements South Africa Will Have to Face in Revising Its Insufficient CITES Permit Support System*, *available at* http://www.wag.co.za/wag_news_rel/notes_on_basic_requirements.html.

[31] The legal basis for this requirement is obtained from art. VIII(1)(b).

[32] David .S. Favre, *International Trade in Endangered Species: A Guide to CITES* 276 (1989).

[33] In fact, as far back as 1986, the World Wildlife Fund described CITES as "perhaps the most effective conservation treaty in existence." *Wolrdwildlife Fund Factsheet: Cites*, (World Wildlife Fund, Gland, Switzerland), Dec. 1986. However, *see* Mark Trexler et al., *The Convention on International Trade in Endangered Species: No Carrot, but Where's the Stick?*, 17 ENVTL. L. REP. 10, 222 (1987).

[34] For a discussion on the success of Multilateral Environment Agreements, *see* "Do International Conventions Work? The CITES Debate Rages On" *at* http://www.wildnetafarica.com/CITES/info/iss_014_debate_05.htm (last visited Mar. 30, 2003).

[35] For more information on implementation, *see The Implementation and Effectiveness of International Environmental Commitments: Theory and Practice* (David G.Victor et al.eds., 1999) .

[36] *See* 'Regional Reports: Africa', CITES AC 18 Doc.5.1. (Rev.1), documented for A.C. 18 (Apr.2002).

[37] For a list of the countries, *see supra* note 32, at app. 2.

[38] *Id.*

[39] For example Algeria in 1984, Ghana in 1976, Liberia in 1981, Morocco in 1976 and Mozambique in 1981.

[40] For more information on the MIKE system, *see* http://www.cites.org/eng/prog/MIKE/index.shtml (last visited Apr. 5, 2004).

[41] MIKE and ETIS systems are the basis upon which CITES parties make any decisions regarding elephant species.

[42] Kal Raustiala, *Reporting and Review of Institutions in 10 Multilateral Environmental Agreements* 84 (UNEP 2001), (providing more information on how MIKE works) [hereinafter *Raustiala*]

[43] *Id.* at 88.

[44] *See Lusaka Agreement on Co-operative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora: Lusaka Final Act* (UNEP 1994).

[45] *Id. at* 236 for a detailed analysis of the Lusaka Agreement.

[46]Other signatories are Uganda, Kenya, Lesotho, Tanzania, Zambia, Ethiopia, South Africa, and Swaziland.

[47] The members of SADC are Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia and Zimbabwe.

[48] CITES Doc.SC.41.6.1. (Rev.) Annex 2, report of the Secretariat's Mission to Verify Compliance with Decision 10.1, Part A by Botswana. Japan, Namibia and Zimbabwe', SC 41 (Feb 1999).

[49] Fifth International Conference on Environmental Compliance 439 (November 16-20, 1998) (suggesting the possibility of direct implementation of environmental agreements to ensure compliance).

[50] *Enhancing Compliance and Strengthening Enforcement of Multilateral Environmental Agreements (MEAs),* Backgrounder on the Johannesburg Summit 2002 Call to Action, (CIEL, Washington, DC), Feb. 21, 2002 *at* http://www.ciel.org/Tae/Johannesburg_Call_Back2.html (last visited Aug. 4, 2003).

[51] Telephone Interview with Carroll Muffett, Director of International Programs, Defenders of Wildlife (June 5, 2003).

[52] Transparency International produced the report. Corruption is defined by the organization as the misuse of entrusted power for private gain. The definition encapsulates both public and private sector corruption, at both petty and grand levels, *available at* http://www.globalcorruptionreport.org/download/gcr2003/20_West_Africa_(Alabi).pdf (last visited Aug.12, 2003).

[53] For a controversial article speaking about UN officials and government officials being major buyers and traffickers of African ivory, *see* http://www.kws.org/ivorytrade.htm (last visited March 30, 2003).

[54] For more information on research currently being done on the precautionary approach and how it ought to be applied in the context of MEAs, *see* the Joint Initiative of Fauna and Flora International, Resource Africa, IUCN Species Program, Environmental Law Centre, Regional Office for South Africa and TRAFFIC, *at* http://www.fauna-flora.org/presss_pub/news_detail.asp?news_id=27 (last visited July 13,2003), for more information, *see at* http://www.pprinciple.net (last visited July 13, 2003).

[55] In recent times, the WTO has stipulated that the precautionary principle is trade restrictive and thus the use of that mechanism can be challenged. *See Trade, Environment and Sustainable Development: Views from Sub-Saharan Africa and Latin America* (Peider Konz et al eds. 1999).

[56] *See* Susan Wolf and A. White, *Principles of Environmental Law* 17 (Susan Wolf et al. eds., 1997).

[57] *See* David Hunter, James Salzman, and Durwood Zaelke, *International Environmental Law and Policy* 405 (2d ed. 2002), for further discussion on the precautionary principle. *(Secondary Source)* [hereinafter *Hunter*].

[58] *Wolf, supra* note 56 at 233, (discussing the preventive principle and an explanation of the preventive approaches to pollution adopted in the United Kingdom).

[59] *See* CITES Resolution Conf. 10.3/11.3 (emphasizing the importance of the precautionary principle).

[60] *See* Antonio Chayes et al., *On Compliance*, 47 INT'L ORG. 175 (1993), (examining the issues of tolerance and what may be considered to be acceptable compliance levels).

[61] *Sand*, *supra* note 3.

[62] *Id.* Sand notes that in practice, knowledgeable observers believe that they often are used simply for temporary administrative reasons.

[63] *Id.*

[64] *Id.*

[65] Martjin Wilder, *Quota Systems in International Wildlife and Fisheries Regime*, 4 J. ENV'T & DEV. 55, 60-69 (1994).

[66] For a discussion on down-listing and how it affects species preservation, *see* Whales and CITES at Greenpeace Digital *at* http://www.greenpeace.org.uk (last visited July 23,2003) .

[67] For further information on COP 10, *see* http://www.animalsagenda.org (last visited July 23, 2003).

[68] These countries argued that their elephant populations were growing, and there was insignificant poaching in their countries. They also noted that they had the means to ensure conservation. *See at* http://www.careforwildus.org/news/CITES/cites.html (last visited July 23, 2003).

[69] It is estimated that global trade in crocodilian skins (listed in appendix 2) is in excess of $200 million per year. *See* World Wildlife website *at* http://www.worldwildlife.org/pdfs/mahogany_ceretification_study.pdf (last visited July 23,2003).

[70] It is estimated that wildlife and fish contribute a minimum of 20% of the rural diets worldwide. In West Africa, it is estimated that about 25% of protein requirements are attained from wild meat. In Liberia, about 75% of the country's meat is from wild animals. Elizabeth L. Bennett et al., *Hunting of Wildlife in Tropical Forests* (WORLD BANK Paper No.76, September 2000).

[71] Rob Barnett, *Food for Thought: the Utilization of Wild Meat in Eastern and Southern Africa* (TRAFFIC East/Southern Africa, 2000), *at* http://www.traffic.org/bushsmeat (last visited Aug. 4, 2003).

[72] For example, in the United States, several domestic laws impose stricter measures than CITES. These laws include the Endangered Species Act (ESA), the African Elephant Conservation Act, Eagle Protection Act, Wild Bird Conservation Act, Migratory Bird Treaty Act, Rhinoceros and Tiger Conservation Act. A fine example of the imposition of stricter domestic measures occurred when the US banned the importation of the Nile crocodile under the ESA even though it was down listed to Appendix 11 of CITES.

[73] Telephone Interview with Carroll Muffett, Director of International Programs, Defenders of Wildlife (June 5, 2003).

[74] Telephone Interview with Chris Wold, Louis and Clark University (May 20, 2003).

[75] For more on the situation in Zambia and the Zambian government's proposition to 'hold a one-off sale of its 17-ton ivory stockpile accumulated from poachers or culled elephants', *see at* http://www.production.enn.com/news/wirestories/2002/05/05092002/reu_47166.asp (last visited Aug.3, 2003).

[76] Essmond Martin, *The South and South East Asian Ivory Markets in Illegal Ivory Export Goes To Asia*, *available at* http://www.afrol.com/News2002/afr006_ivory_trade.htm (last visited Jan. 3, 2003), (noting that tourists "are the main buyers of worked ivory").

[77] The U.S. Customs Agency notes that wildlife trafficking is as profitable as drug trading, *see at* http://www.awionline.org/wildlife/aa-cites.htm (last visited Aug. 4, 2003).

[78] For information on U.S. support of the sale of stock piles of ivory from Namibia, Botswana, and South Africa to the exclusion of Zambia and Zimbabwe, *see* the East African publication *at* http://www.nationaudio.com/News/EastAfrican/25112002/Regional/Regional2.html (last visited Aug. 4, 2003).

[79] *See at* http://www.nationaudio.com/News/DailyNation/09032000/Features/Horizon3.html (last visited Aug. 4, 2003).

[80] *See at* http://www.careforwildus.org/news/CITES/cites.html (last visited Mar. 4, 2003).

[81] *See Henley, supra* note 14 at 55, (noting that the estimated minimum declared value for international wildlife trade is about $10 billion annually).

[82] *See at* http://www.riia.org/pdf/research/africa/Africa%20BP02.pdf (last visited Aug. 3, 2003).

[83] Carl Quaye, *President Kuffuor and The Search for Peace,* WEST AFRICA MAGAZINE, June 9-15, 2003 at 6, (addressing the issue of the conflicts in

Liberia and Cote D'Ivoire and how the Ghanaian President is playing a leading role in the quest for peace).

84 War is also prevalent in countries such as the Democratic Republic of the Congo. For more information, *see* Guy Arnold, *Endless Crisis,* WEST AFRICA MAGAZINE, June 9-15, 2003 at 18, (examining Western and African responses to fighting in that country).

85 Issaka K. Souare, *Abuse of Power in Africa*, WEST AFRICA MAGAZINE, June 9-15, 2003 at 18.

86Derek de la Harpe, *African Attitudes Towards CITES: A Look at One Factor Behind the Diversity of Opinion, available at* http://www.wildnetafrica.com/cites/info/vfs_essay_002.html (last visited March 30, 2003).

87 Markus Burgener, *Nature Conservation Legislation Reviewed in South Africa*, DISPATCHES, July 2001, *available at* http://www.traffic.org/dispatches/salaw.html (last visited May 29, 2003).

88 This is in contrast to the proposition by Peter H. Sand who provides a pessimistic outlook on the future of CITES. He believes that the Convention may already have reached its outer limits and that its relevance may be diminished unless new methods of regulation can be developed. *Compare* Peter H. Sand, *Commodity or Taboo? International Regulation of Trade in Endangered Species*, GREEN GLOBE YEARBOOK OF INTERNATIONAL CO-OPERATION ON ENVIRONMENT AND DEVELOPMENT 19-36 (Olav Schram Stokke et. al. eds., 1997), *available at* http://www.greenyearbook.org/articles/97_01_sand.pdf (last visited Aug 4, 2003) .

89 *See* John Whitfield, *CITES Comes of Age*, NATURE, Nov. 19, 2002, *available at* http://www.nature.com/nsu/021118/021118-3.htm (last visited Aug. 4, 2003), (noting that the approaches to the Convention in recent times are quite progressive and have influenced the willingness to apply CITES to 'truly commercial species' as opposed to previous thinking which was to only apply the Convention to rare plants and animals).

90 *International Expeditions*, ENVIRONS 2002-2003, *at* 90-102, for information on tourism in Africa.

91 *Hunter* et al., *supra* note 57 at 1022.

92 For example like the weeklong workshop which ended on August 1^{93}, in Anguilla. There, enforcement agencies in the United Kingdom Overseas Territories (OTs) in the Caribbean were informed about ways to combat illegal wildlife trade in the region. *See at* http://www.traffic.org/news/cites_uk.html (last visited Aug 3, 2003).

93 'Green Advocates' is an association of Liberian lawyers dedicated to promoting environmental sustainability through education, legislation and the rule of law. For more information on the work that Green Advocates is embarking upon, *see*, Alfred Brownell, *Green Advocates in Liberia*, TUL. ENVTL L. NEWS, Fall 2000, at 8.

94 INECE is an international partnership that specializes in the promotion of compliance and enforcement of domestic and international environmental laws through networking, capacity building, and enforcement cooperation. INECE's partner institutions include the US EPA, UNEP, the World Bank, OECD and the EU. *See at* http://www.inece.org (last visited Aug 3, 2003).

95 For information on this initiative, visit the NEPAD website *at* http://www.nepad.org (lasts visited Aug.13, 2003).

96 *See at* http://www.riia.org/login_popup.php?page=International%20Affairs&fwd=http://www.riia.org/pdf/int_affairs/INTA261.pdf&fwdID (last visited Aug. 3rd, 2003) .

97 INTERNATIONAL LAW AND SUSTAINABLE DEVELOPMENT: PAST ACHIEVEMENTS AND FUTURE CHALLENGES (David Freestone & Alan Boyle eds., 1999).

98 *Raustiala*, *supra* note 42.

99 Telephone Interview with Chris Wold, Louis and Clark University (May 20, 2003).

100 Peter Fitzmaurice, *Saving the Elephant: Nature's Great Masterpiece*, THE ECONOMIST, July 1, 1989, at 15.

101 Michael J. Glennon, *Has International Trade Failed the Elephant?* 84 AM. J. IN'L L. at 2 (1990).

102 R. Yaeger & N. Miller, *Wildlife, Wild Death: Land Use and Survival in Eastern Africa* (1986).

103 For a perspective on the preservation of endangered species for the well being of the community, *see* S. Fitzgerald, *International Wildlife Trade: Whose Business Is It?* (World Wildlife Fund: Washington, DC), 1989, at 5-12.

104 For example, the sanction against Thailand in 1991-1992. CITES secretariat, *Notifications to the Parties* No.636 of 22 April 1991 (ban recommended) and 673 of 2 April 1992 (ban lifted). This ban was implanted by the USA by virtue of a unilateral decision to ban wildlife imports from Thailand; US *Federal Register* 56,32206. *Also* the ban against Italy in 1992-93. CITES Secretariat, *Notifications to the Parties* No.675 of 30 June 1992 (ban recommended), No.722 of 19 February 1993 (ban suspended), and No.842 of 18 April 1995 (ban lifted). *See also* T. Scovazzi, *Two Italian Judgments Relating to the Implementation of Environmental Conventions*, 5 EUR. ENVTL. L. REV. 315 (1996).

105 S. Patel, *the Convention on International Trade in Endangered Species: Enforcement and the Last Unicorn*, 18 HOUS. J. INT'L L. 157 at 97-99 (1995). *See also* A. F. Upton, *the Big Green Stick: Reducing International Environmental Degradation Through US Trade Sanction*, 22 B.C. ENVTL. AFF. L. REV. 671, 671-692 (1995).

106 *See at* http://www.ecouncil.ac.cr/rio/natreg/afrmidea/english/gha.htm (last visited Aug. 9, 2003).

107 *See at* http://www.natureserve.org/conservation/endangeredSpecies.jsp (last visited Aug. 3, 2003).

108 Markus Burgener, Nature Conservation Legislation Reviewed In South Africa, *available at* http://www.traffic.org/dispatches/salaw.html.

109 COP-11 adopted the following decision in 2001. "Parties should not authorize any trade in specimens of CITES- listed species with any party that the Standing Committee has determined has failed, without having provided adequate justification, to provide annual reports for three consecutive years. CITES Decision 11.37

110 Steve Charnovitz, *Encouraging Environmental Cooperation Through the Pelly Amendment*, 3 J. ENV'T DEV. 4 (1994).

African Environmental Information Network:

Improving Enforcement and Compliance Within Africa

*By Shelly Dill**

Introduction

The African Environmental Information Network ("AEIN") is a cutting edge concept in providing access to information within Africa. The most important result of the AEIN is the facilitation of environmental enforcement and compliance in a region that struggles with those goals. Although protection of the environment is codified in a number of environmental laws and regulations throughout the world, the creation of regulatory instruments in many developing countries has resulted in amplified rhetoric and minimal compliance. Development professionals attribute this lack of compliance, in part, to a lack of information.

Access to environmental information, therefore, has become a vital issue in achieving international development and environmental sustainability. Sound environmental data indicating environmental well-being must be accessible by decision makers at local, state, and national levels in order to provide countries with the tools necessary to support sustainable development. Unfortunately, the gap between quality data in the developing world and the developed world has only increased the incapacity of less developed countries to make informed decisions relating to the environment. In response to a global environmental agenda and in an effort to ensure sustainable development, many African governments have established a number of regulatory instruments to protect their environmental resources.

"Sound environmental data indicating environmental well-being must be accessible by decision makers at local, state and national levels in order to provide countries with the tools necessary to support sustainable development"

Despite these mechanisms, however, environmental degradation is still a major obstacle to development in Africa.[1] The failure of these mechanisms stems, in part, from a lack of compliance on the part of the regulated community and a lack of capacity on the side of enforcement agencies.[2] Lack of compliance on the part of the regulated community is sometimes simply due to lack of adequate information on obligations and available mechanisms to bring about compliance.

AEIN is an initiative that was created to provide a framework for capacity building in environmental information management, to enhance access to quality information, to ensure public participation in environmental governance, and to increase compliance. AEIN is an initiative of the African Ministerial Conference on the Environment ("AMCEN"), the preeminent African environmental policy organ.

AEIN's Objectives and Structure

AEIN is a multi-stake holder capacity building network dedicated to supporting sustainable development planning in Africa. AEIN is spearheaded by the United Nations Environment Program ("UNEP") Regional Office for Africa and UNEP Division of Early Warning and Assessment ("UNEP-DEWA"), located in Nairobi, Kenya.[3] UNEP-DEWA focuses on building capacity for early warning and environmental assessment, thereby ensuring that proper mechanisms are in place for sustainable development.[4] The AEIN is intended to bolster Africa's inadequate institutional capacity by addressing the following problems: the lack of harmonized efforts for environmental assessment and reporting; poor compliance and enforcement; and the lack of integrated environmental information into decision making and sustainable development processes.[5]

The implementation strategy emphasizes partnerships among new and ongoing initiatives around the continent. At the national level the network will comprise a community of producers and users of a broad range of environmental information, including non-governmental organizations, universities, and research institutions. Existing institutions that have the mandate for collecting the data will maintain their autonomy and unique identities within the community, but will be affiliated through data exchange protocols.

*Shelly Dill, J.D. Candidate, May 2006, American University, Washington College of Law. The author thanks Charles Sebukeera and Ken Markowitz for their contributions to this article.

Examples of Progressive Strategies Under Consideration by AEIN to Support Environmental Enforcement

- Development of Country Specific AEIN Implementation Strategies.
- Strengthening Capacity for Integrated Assessment and Reporting
- Developing a Common Platform for Environmental Information Exchange in Africa
- Strengthening Communication Network Infrastructure for Environmental Management Progress

National networks will be aggregated together at the sub-regional level to facilitate coordination and harmonization of activities and information to contribute to the regional level processes.

Key environmental issues of Africa to be addressed within AEIN include: 1) land degradation; 2) protective and sustainable use of forests; 3) effective management of biodiversity; 4) water scarcity and efficient water management; 5) pollution of freshwater, urban, coastal and marine areas; 6) protection of marine and coastal resources; 7) drought and climate change; and 8) population pressures on natural resources and urban areas.[6]

Implementation of AEIN

AEIN is in its first phase of a three-phase implementation, and is currently funded, through UNEP, the Norwegian Ministry of Foreign Affairs and Ireland Aid.[7] The emphasis in the first phase is on identifying tools and the information network that currently exist in African countries and to implement various pilot activities in thirteen countries.[8] These pilot activities will test ideas with respect to networking, information sharing procedures, and the adaptation of various methodologies and tools to local communities.[9] Another early step for AEIN will be to support each country in the development of a national strategy to strengthen the environmental information system capacity within the country.[10]

The second and third implementation phases involve filling gaps in data to strengthen the data foundation for long-term and institutional capacity building.[11] AEIN is exploring the development of partnerships with global leaders in sustainable development (e.g., USAID, the World Bank) and with the International Network for Environmental Compliance and Enforcement ("INECE"), which supports regional capacity for enforcement programs.[12] Expected outputs from the program include regular policy and thematic briefs, bulletins of compliance and enforcement initiatives, current environmental reports, a web based compliance monitoring tool for environmental inspectors, reports to international conventions, and the provision of "virtual" information through the Web.[13]

Conclusion

AEIN is a far-reaching, innovative, and progressive program that will provide critically important infrastructure support for the development of an African environmental regulatory system that is functional and effective. The environmental regulatory community in developed countries must be proactive in their long-term support of environmental information initiatives like AEIN. AEIN is in its first phase of implementation – the crucial stage of solidifying partnerships, developing country specific implementation strategies and implementing pilot initiatives is critical to the achievement of AEIN's long-term objectives. If access to transparent and high quality environmental information is not forthcoming, African leaders will not have the information necessary to prevent further environmental degradation and vulnerability within the continent.

Endnotes:

African Environmental Information Network

1 *See* Charles Sebukeera, *Strengthening Compliance Enforcement Within Africa Environmental Information Network (AEIN) Framework Concept Document*, Presentation made at the 5th INECE EPC Meeting, 26th to 29th May 2003, Washington D.C, USA.

2 *Id.*

3 *See* United Nations Environmental Program's Global Environmental Outlook, *Africa Environmental Outlook* (a comprehensive report on the African environment), *available at* http://www.unep.org/aeo/index.htm (last visited Feb. 16, 2004).

4 *Id.*

5 UNEP, Africa Environment Information Network, *Framework for Capacity building In Integrated Assessment and Reporting in Africa*, 2003.

5 *See* Africa Environmental Information Network-Regional Office for Africa Webpage, *available at* http://www.unep.org/roa/aein/ABOUT.ASP (last visited Feb. 10, 2004).

6 *See* Africa: UNEP.Net Webpage, *available at* http://africa.unep.net/ein/content1.asp (last visited Feb. 10, 2004).

7 *See* Africa Environmental Information Network-Regional Office for Africa Webpage, *supra* note 7.

8 *Id.*

9 *See* Africa Environmental Information Network-Regional Office for Africa Webpage, *Implementation Plan*, *available at* http://www.unep.org/roa/aein/impl_plan.asp (last visited Feb. 10, 2004).

10 *See* Africa Environmental Information Network-Regional Office for Africa Webpage, *supra* note 7.

11 *See* International Network for Environmental Compliance and Enforcement, *available at* http://www/inece.org (last visited Feb. 16, 2004).

12 *See* Charles Sebukeera, *Strengthening Compliance Enforcement within Africa Environmental Information Network (AEIN) Framework Concept Document*, Presentation made at the 5th INECE EPC Meeting, 26th to 29th

Book Review

Power to the People:

How the Coming Energy Revolution Will Transform an Industry, Change Our Lives, and Maybe Even Save the Planet

By Vijay Vaitheeswaran. 327 pp. Farrar Straus and Giroux. $25.

*Reviewed by Matt Brown**

Vijay Vaitheeswaran's *Power to the People* provides a compelling study of the world's energy use in the past, the present and the future. He briefly looks at the past to show us where we have been and what we can learn from previous mistakes. His momentary exploration of the present circumstances of the energy industry point to what ills we must cure and give signs of hope. Vaitheeswaran's focus, however, is clearly on the future of energy. In particular, he examines the development of hydrogen fuel cells and the concept of micropower for their ability to replace today's power plants as well as their potential to revolutionize the automobile and transportation industries. Yet his searching exploration of the energy industry is not limited to a probing study of budding hydrogen technologies. He also studies the technological advances being made in hydrocarbon discovery, recovery, and pollution control. Vaitheeswaran continues his exploration by delving into the nuclear industry. Without question, Vaitheeswaran takes the reader on an exhaustive and searching journey through the energy industry.

Power to the People is full of challenges. That is not to say it is a difficult read. Rather, it challenges many assumptions of environmentalists as well as those of oil barons and coal tycoons. No one is safe from Vaitheeswaran's scathing equal-opportunity critique. ExxonMobil boss, Lee Raymond, is singled out for leading his company in a backward looking way without giving due notice to the future of energy beyond oil. Bill Clinton and Al Gore's poor leadership during the Kyoto climate summit negotiations are also subjected to the author's scorn. The book does not seek to serve as a manifesto for Greens nor does it serve as propaganda for the hydrocarbon industry, rather it separates pure ideology out of the equation and simply tries to convey the author's thoughts surrounding the production of energy and its future.

While his book appears relatively unbiased, there is a bit of prejudice in Vaitheeswaran's writing. He seems more enthralled with unleashing the forces of free market environmentalism than command and control techniques. Vaitheeswaran's commitment to ending market distorting subsidies and regulations combined with his advocacy for taxing emissions is revisited throughout the book. His advocacy, however, does not take away from the value of the book—his words have the power to persuade.

Power to the People is not only comprehensive in its examination of the energy industry but also in how energy politics plays out across the world. Vaitheeswaran prescribes solutions to what ails both the developed and developing world. He highlights initiatives to bring power and technology to San Ramon, Honduras and the Maratha colony in India. Vaitheeswaran predicts that, with the right policies and incentives, the world's energy future could be both bright and environmentally sustainable for even the poorest in the world.

In discussing the world's energy future, Vaitheeswaran introduces us to the innovators as well as to the industrial dinosaurs. Of these innovators, he highlights the contributions of Amory Lovins, whom he affectionately refers to as the "Sage of Snowmass." Mr. Lovin's work at the Rocky Mountain Institute in developing a hydrogen fuel cell car is mentioned excitedly throughout the book. In addition, Vaitheeswaran focuses on the research conducted by Ballard Power, United Technologies, and others leading the future of hydrogen fuel cells. Vaitheeswaran explores many other segments of the emerging fuel cell industry, giving names and stories to the scientists and business leaders who are leading the way. *Power to the People* breathes life into industries that were formerly the stuff of brief newspaper articles and campaign speeches.

Vijay Vaitheeswaran's *Power to the People* is an accessible and comprehensive look at a highly technical field. One need not be an engineer or a policy wonk to join Vaitheeswaran's journey—a journey well worth taking. *Power to the People* illuminates the troubles of the past and present in order to articulate a vision of a future with abundant and environmentally sustainable energy supplies.

*J.D. Candidate, May 2004, American University, Washington College of Law.

World News

by Lydia Edwards, Kirk Herbertson & Dave Karlinsky

Africa

USAID and Shell to Spend $20 Million on Development Project in Nigeria's Niger Delta

In February, the United States Agency for International Development ("USAID"), the International Institute of Tropical Agriculture, and the Shell Petroleum Development Company ("SPDC") signed an agreement to implement a $20 million development program in the Niger Delta of Nigeria.[1] Shell is the largest producer of Nigerian oil.[2] The purpose of the program is to diversify the source of livelihoods in the impoverished region.[3] Shell will contribute $15 million, and USAID will contribute $5 million, towards the development of a large-scale cassava enterprise.[4] Shell plans to continue signing similar agreements with other international development agencies in an effort to ease the tension in underdeveloped communities in oil-bearing regions.[5] The Niger Delta region has been the site of ethnic violence. In the past year, Shell was forced to evacuate its facilities due to violence in the Warri area.[6]

Bikes and Sustainable Development

The International Bicycle Foundation ("IBF") is an independent, non-profit organization that promotes a sustainable, people-friendly environment by creating opportunities of the highest practicable quality for bicycle transportation.[7] IBF efforts are found all over the world in such countries as Guyana, Ecuador, and India.

In Tunisia, IBF works with *Femmes pour le Dévelopment Durable* ("Women for Sustainable Development"), a Tunisian social and environmental organization. Together they reach the needs of urban and rural women by encouraging the use of bicycles. This effort also encourages pollution control and generates income for many women. The IBF encourages women to use bicycles through games, theater plays, paintings, rallies, awards, booklets, conferences, seminars and workshops. To date, IBF has motivated over 2,000 Tunisian women to start cycling, a majority under age twenty-five.[8]

In Ghana, IBF's provides bicycle trailers to women as an alternative to head portage. But the bicycles are also seen as a means to help democratization. In some districts, local government officials walk thirty-one miles to perform assembly functions. The bikes provide a means of transportation in areas that are not easily accessible by car. So far, 200 bikes have been provided on a hire-to-purchase program.[9]

Tensions Rising Over Nile Water

A conference scheduled for March 2004 will attempt to settle brewing disputes over the use of the Nile River.[10] Representatives of the Nile Basin nations (Kenya, Tanzania, Egypt, Uganda, Sudan, Burundi, Rwanda, Congo, Ethiopia, and Eritrea) will meet to discuss issues such as irrigation rights and potential hydroelectric projects.

A 1929 treaty between Egypt and Great Britain, who signed on behalf of its colonized regions, governs current use of the river. Under the treaty, Egypt has the right to veto any appropriation of Lake Victoria's water if it believes that Nile flows may be threatened. Nations in the river's upper-basin region therefore have little say regarding how this water is used. In recent years, several of these nations have experienced drought, famine, and extreme poverty. Soil erosion and deforestation plague the region. Many people wonder why they cannot use the waters flowing through their lands. They question whether they must abide by the terms of a treaty signed by colonial masters who have long since disappeared.

Some upper-basin politicians criticize the World Bank for perpetuating the treaty's terms. The World Bank has refused to provide loans to pay for water infrastructure projects in the upper basin until lower-basin nations (such as Egypt) consent. This is a significant obstacle. Egypt has obvious incentives to maintain its generous supply of Nile water. Over 95% of Egypt's water supply comes from the river. Furthermore, most of the country's population resides in the river valley, occupying only 4% of the country's territory.

U.S. Companies Will Return to Libyan Oil

On February 26, 2004, U.S. companies with holdings in Libya were granted permission by the White House to resume deals that had been stalled by 1986 sanctions against Libya.[11] The Bush Administration lifted the ban on travel to Libya and invited companies to begin the process of returning but only after Moammar Gadhafi's government renounced weapons of mass destruction, allowed weapons inspectors to enter, and accepted responsibility for the 1988 Pan Am Flight 103 bombing.[12] Libyan oil production has declined to about half of its level of 1970. This summer Libya plans to allow foreign companies to bid on five exploration sites.[13] If U.S. economic sanctions remain in place, any agreements made by American oil companies will require U.S. approval.[14]

Asia

Women Taking Initiative in India

Women for Sustainable Development ("WSD") is an organization in India that promotes sustainable development to achieve its goal to assist women.[15] They hope to help all women attain a minimum standard of human existence in their villages and towns, and to help set up a forum for women to meet, debate, and decide on matters concerning the development of their lives.

One way this organization has achieved its goal to assist women is through the running of a prototype carbon marketing facility in order to monitor and sell Certified Emissions Reductions ("CERS") from global environmental services. Another aim of the organization is economic stability for poor rural women. Pursuant to that goal, WSD runs a loan fund for women to borrow money for dairy cows.

Hundreds of Thousands Evicted in China in Preparation for Olympics

The Geneva-based Centre on Housing Rights and Eviction ("Cohre") announced on February 25, 2004 that China had evicted 300,000 people from their homes in Beijing in preparation for the 2008 Summer Olympics.[16] Scott Leckie, Executive Director of Cohre, reported that such evictions often accompany large international events.[17] Residents of Rome had also been evicted in preparation for the 2004 Summer Olympics.[18]

Expansion of Water Privatization in Indonesia

The Indonesian legislature has endorsed a water bill allowing for the privatization of the water sector, even though price increases are expected.[19] Providing clean water to municipal and industrial areas may become a profitable business for private corporations both in the United States and in developing countries.[20] Municipal governments throughout the world are increasingly having difficulties maintaining public water systems. In Jakarta, Indonesia, 90% of 300 province- and regency-owned tap water companies are on the verge of collapse, because they have been selling water at prices well below production costs.[21] In India, though, there has been opposition to the idea of privatization of water. The Delhi Jal Board, which runs the capital city's water supply and sewage disposal, and the Delhi government recently rejected a World Bank report's suggestions for the privatization of the water sector.[22] In the U.S., General Electric has already developed a highly profitable water processing division, GE Water Technologies.[23] Dow Chemicals has begun a venture called Filmtek, a water purification company, which is not yet making significant profit.[24] Private water corporations may have an increasing presence in the near future.

Middle East

Invasive Jellyfish Threatens Caspian Sea

An invasive species of jellyfish, the "Mnemiopis", is decimating native fish stocks in the Caspian Sea and threatening local fisheries that depend on the stability of the Caspian's ecosystem.[25] Only two inches long, the jellyfish reproduces rapidly, producing up to 8,000 offspring per day. Mnemiopis feeds on plankton, which are the primary food source of small native fish known as "kilka." Caspian sturgeon, which feed on kilka, are threatened by the invasion. Local fishermen who harvest sturgeon produce most of the world's supply of caviar.

Iran has proposed introducing a new fish into the Caspian Sea to combat the threat. The new fish is known as *Beroe ovata*, and is native to the Black Sea. Scientists hope that this new fish will consume the Mnemiopis in great numbers and help preserve the Caspian's native ecosystem and its valuable fisheries. There is uncertainty, however, whether this new species can survive in the Caspian's less salty waters.

Americas

Bolivian Indigenous Population Unseats the President

Following a hunger strike by the residents of El Alto, a Bolivian town populated by Aymaran Indians, the indigenous population of Bolivia began demonstrations which ultimately lead to the resignation of President Lozada.[26]

The demonstrations began when the President announced that Bolivia would start to export natural gas to the United States and Mexico. The demonstrators alleged that the continued privatization of industry, cost cutting, and pro-U.S. policies advocated by the IMF and the World Bank have increased poverty in the country. They also demanded respect for land tenure agreements and opposed the Free Trade Agreement of the Americas. [27] The government believed that the gas exports would attract foreign capital, thereby boosting the economy.

The demonstrators piled rocks, blocking all streets that lead to La Paz, the nation's capital. They continued for a month, essentially shutting down the city. Striking tin miners and peasants from the Yungas lowlands converged on the capital and continued the blockade of the capital.

The President's power was very weak even before the protests began. While running for office, he received the same amount of votes as his left wing opponent. [28] He was appointed by the Congress. In February, his authority was weakened further as a result of protests against an IMF-backed tax.

President Lozada resigned on October 17, 2003, and Vice President Carlos Mesa was sworn in to complete his term. [29] Gas exports have been delayed until December. [30]

U.S. Landmine Policy Altered

On February 27, 2004, the Bush Administration altered the ten-year U.S. policy on eliminating landmines. The original policy began in 1994, when the United States became the first nation to call for the elimination of all persistent landmines. Landmines can lay active for decades before exploding. There have been over 300,000 victims of landmines and 10,000 victims are added annually.[31] The call for the elimination of persistent landmines was part of a worldwide movement that cul-

minated in the 1997 Mine Ban Treaty. Currently, 141 countries have signed the treaty. Now, the United States will be the only member of NATO not party to the treaty.[32]

The U.S. had planned to join the Mine Ban Treaty by 2006.[33] The new policy decision has pushed that date back to 2010. Assistant Secretary of State Lincoln Bloomfield has pointed out that the mines causing the injury toll are not from the U.S. armed forces with the exception of some left over from the Vietnam conflict. [34]

The Bush Administration's new policy distinguishes between persistent mines and smart mines. While continuing to ban persistent mines, the policy allows for smart mines. Smart mines self-destruct within a certain number of hours or days. If the self-destruct mechanisms fail, then the battery will expire within 90 days.[35]

Stephen Goose, Executive Director of the Arms Division of Human Rights Watch, criticized the U.S. decision, because the policy change allows U.S. forces to use smart mines indefinitely.[36] Assistant Secretary of State Bloomfield commented that the U.S is still interested in decreasing mine use, and will work through the Convention on Certain Conventional Weapons to end the indiscriminate use of all landmines.

Gray Wolves Considered for De-listing as Endangered Species

The U.S. Fish and Wildlife Service has moved to de-list the North American gray wolf under the Endangered Species Act claiming that the wolf has recovered successfully since being re-introduced into Yellowstone National Park in 1995.[37]

The last native gray wolf in Yellowstone National Park was killed in the 1930s. In 1995, as part of an ambitious recovery program, the wolf was reintroduced into the park and protected under the Endangered Species Act. Since reintroduction, the wolves have prospered in Yellowstone's protected habitat. Wolf-watching now ranks as one of the park's most popular attractions.

Inside Yellowstone, wolves are well-protected, but some wildlife experts worry that de-listing the species is premature. The species' survival, they argue, ultimately depends on the wolves' ability to cross-breed among the different populations to combat threats of disease. However, many miles of rangeland and settled terrain separate these populations. Three distinct populations of gray wolves remain in the continental United States. In addition to the Yellowstone wolves, populations survive in central Idaho and northwestern Montana.

Only thirty-eight species have been de-listed under the Act since 1967. Over twelve hundred species are still listed as endangered.

Court Refuses to Allow EPA to Extend Ozone Pollution Deadlines in D.C.

In early February, the U.S. Court of Appeals for the D.C. Circuit ordered the EPA to impose more severe controls on ozone pollution in the Washington, D.C. metro region.[38] The Court refused to allow the EPA to give the region an extension until 2005 to meet the Clean Air Act 1999 deadline for ozone pollution standards.[39] Washington D.C. has been a consistent violator of ozone pollution standards in the past, and is one of the worst U.S. cities for smog.[40] The EPA had attempted to extend the deadline after concluding that many of the ozone-forming particles in the city blow in from other regions.[41] This court ruling may force city officials to enact more regulations or face federal sanctions.[42] Areas in "severe" violation of EPA standards are supposed to reduce ozone-forming emissions by 3% each year until compliance is reached.[43] The suit was brought by the Sierra Club, its third successful suit against the EPA regarding ozone pollution in the Washington, D.C. area.[44]

Eurasia

Russian Ratification of the Kyoto Protocol Sought

On February 26, 2004, the European Energy Commissioner, Loyala de Palacio, asked Russia to clarify whether it intended to ratify the Kyoto Protocol, calling Russia's decision vital to the future of the treaty.[45] The Kyoto Protocol cannot be implemented until it has been backed by industrial nations that produce a combined 55% of the world's greenhouse gases.[46] Since the U.S. did not sign, Russia must sign for the treaty to come into effect.[47] By signing the Protocol, a country commits to scaling back emissions of six greenhouse gases to 1990 levels by 2012.[48] Recently, Russian President Vladimir Putin's economic advisor, Andrei Illarionov, said that Russia's ratification of the Kyoto Protocol would doom the Russian economy to "poverty, weakness, backwardness", and argued that while the Protocol is clearly favored by countries dependent on nuclear energy, it would be detrimental to the oil and gas economy of Russia.[49]

BTC Oil Pipeline through Central Asia Approved

After years of debate, the Baku-Tbilisi-Ceyhan ("BTC") crude oil pipeline has been approved.[50] The pipeline, due to be operational by March 2005, will transport one million barrels per day over the 1760km from Azerbaijan and the Caspian Sea to Turkey.[51] British Petroleum ("BP") is the largest shareholder in the BTC Consortium, but the project is also being co-financed by the International Finance Corporation ("IFC") of the World Bank.[52] The proposed pipeline has been the source of controversy between the Consortium and environmentalists. From one perspective, the pipeline will provide economic benefits to Azerbaijan, one of the world's poorest nations, and it will reduce U.S. and European dependence on oil from the Persian Gulf.[53] But on the other hand, it will pass through several environmentally sensitive regions, such as habitats of endangered species and a mineral water deposit.[54] The World Wildlife Fund has criticized pipeline constructors for placing an inadequate anti-corrosion coating on sections of the pipeline already buried.[55] Consequently, pipeline corrosion may be a problem in the future.

ENDNOTES: World News

1 *Nigeria: USAID, Shell to Spend $20m for Niger-Delta Devt,* AFRICA NEWS, Feb. 23, 2004, *available at* http://www.wbcsd.org (last visited Feb. 29, 2004) [hereinafter *Nigeria*].

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25 *Iran Proposes War of 'Comb Jellies' in Caviar Sea*, Reuters News Service, *available at* http://www.planetark.com/avantgo/dailynewsstory.cfm?newsid=24006 (last visited Feb. 29, 2004).

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31 *See* David Anthony Denny, *U.S. Announces New Worldwide Landmine Policy*, Feb. 2004 (announcing the policy change decision), *available at* http://usinfo.state.gov/topical/pol/arms/04022702.htm (last visited Feb. 28, 2004).

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International Calendar

May

Fourth World Fisheries Congress
Reconciling Fisheries with Conservation: The Challenge of Managing Aquatic Ecosystems

Vancouver, BC, Canada
May 2-6, 2004
Web Site: http://www.worldfisheries2004.org/program/congress_theme.htm

ISCRAM 2004: The International Workshop on Information Systems for Crisis Response and Management

Brussels, Belgium
May 3-4, 2004
Web Site: http://www.tilburguniversity.nl/iscram2004

Advanced Institute on Vulnerability to Global Environmental Change

Laxenburg, Austria
May 3-21, 2004
Web Site: http://www.start.org/links/announce_oppo/P3_Announcement.pdf

Conference on Greenhouse Gas Registries, Climate Policy and the Bottom Line

San Diego, California, United States
May 5-7, 2004
Web Site: http://www.climateregistry.org/EVENTS/Conference

Forum Barcelona 2004: Universal Forum of Cultures

Barcelona, Spain
May 9- Sept 26, 2004
Web Site: http://www.barcelona2004.org/eng/

Third Session of the Permanent Forum on Indigenous Issues: Indigenous Women

New York, United States
May 10-21, 2004
Web Site: http://www.un.org/esa/socdev/pfii/PFII3/index.html

Course on Public-Private Partnership Policies and Strategies: Improving Efficiency and Quality in Public Service Delivery

Cape Town, South Africa
May 10-24, 2004
Web Site: http://www.ip3.org

Global H20 Partnership Conference

Cairns, Australia
May 11-14, 2004
Web Site: http://www.hilltops2oceans.org

OECD Forum 2004- Health of Nations

Paris, France
May 12-13, 2004
Web Site: http://www1.oecd.org/forum2004

Conference on the Critical Elements of International Climate Policy

Hamburg, Germany
May 12-14, 2004
Web Site: http://www.hwwa.de/climate.htm

GEN Roundtable:
Biotechnology and Trade: Untangling the Key Issues

International Environment House, Geneva, Switzerland
May 19, 2004
Web Site: http://www.environmenthouse.ch/roundtables.htm

Coastal Society 2004 Conference

Newport, Rhode Island, United States
May 23-26, 2004
Web Site:
http://www.thecoastalsociety.org/conference/tcs19/index.html

Second World Renewable Energy Forum

Bonn, Germany
May 30-31, 2004
Web Site: http://www.world-council-for-renewable-energy.org

JUNE

INTERNATIONAL CONFERENCE FOR RENEWABLE ENERGIES

Bonn, Germany
June 1-4, 2004
Web Site: http://www.renewables2004.de/

SHARING INDIGENOUS WISDOM: AN INTERNATIONAL DIALOGUE ON SUSTAINABLE DEVELOPMENT

Green Bay, Wisconsin, United States
June 6-10, 2004
Web Site:
http://www.sharingindigenouswisdom.org/default.asp

FIFTH MEETING OF THE OPEN-END INFORMAL CONSULTATIVE PROCESS ON OCEANS AND THE LAW OF THE SEA

New York, United States
June 7-11, 2004
Web Site: http://www.un.org/Depts/los/consultative_process/consultative_process.htm

G-8 SEA ISLAND SUMMIT

Sea Island, Georgia, United States
June 8-10, 2004
Web Site: http://g8usa.gov

11TH UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT (UNCTAD XI)

Sao Paulo, Brazil
June 13-18, 2004
Web Site: http://www.unctad.org/Templates/Startpage.asp?intItemID=1942&lang=1

TENTH INTERNATIONAL CORAL REEF SYMPOSIUM (ICRS)

Okinawa, Japan
June 28- July 2, 2004
Web Site: http://www.plando.co.jp/icrs2004/

MEETING OF THE AD HOC COMMITTEE ON POPULATION AND DEVELOPMENT

Puerto Rico
June 29-30, 2004
Web Site: http://www.unfpa.org/icpd/10/index.htm

JULY

COMMITTEE ON TRADE AND ENVIRONMENT

Geneva, Switzerland
July 6-7, 2004
Web Site: http://www.wto.org

SUSTAINABLE TOURISM 2004

Segovia, Spain
July 7-9, 2004
Web Site: http://www.wessex.ac.uk/conferences/2004/sustainabletourism04/index.html

8TH BIENNIAL SCIENTIFIC CONFERENCE OF THE INTERNATIONAL SOCIETY FOR ECOLOGICAL ECONOMICS

Montreal, Canada
July 11-14, 2004
Web Site: http://www.ecologicaleconomics.org

2004 XV INTERNATIONAL HIV/AIDS CONFERENCE

Bangkok, Thailand
July 11-16, 2004
Web Site: http://www.aids2004.org

24TH OPEN-ENDED WORKING GROUP MEETING OF THE PARTIES TO THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEPLETE THE OZONE LAYER

Geneva, Switzerland
July 12-16, 2004
Web Site: http://www.unep.org/ozone

2004 TUNZA INTERNATIONAL CHILDREN'S CONFERENCE ON THE ENVIRONMENT

New London, Connecticut, United States
July 19-23, 2004
Web Site: http://www.icc04.org/home.html

SEVENTH INTECOL INTERNATIONAL WETLANDS CONFERENCE

Utrecht, Netherlands
July 25-30, 2004
Web Site: http://www.bio.uu.nl/intecol

WATER AND WASTEWATER ADVICE FOR DEVELOPING COUNTRIES

Victoria Falls, Zimbabwe
July 28-30, 2004
Email: wamdec2004@eng.uz.ac.zw

WORKING GROUP ON INDIGENOUS POPULATIONS (22ND SESSION)

Geneva, Switzerland
July 2004 (to be determined)
Web Site: http://www.unhchr.ch

August

The Second Worldwide Symposium on Gender and Forestry

Arusha, United Republic of Tanzania
August 1-10, 2004
Organized by University of Ghana
Email: ardayfel@ug.edu.gh

Twelfth Annual Short Course in Global Trade Analysis

Purdue University, West Lafayette, Indiana, United States
August 7-13, 2004
Web Site: http://www.gtap.org

International Conference on Global Waters Assessment and Integrated Waters Management

Kalmar, Sweden
August 22-25, 2004
Web Site: http://www.giwa.net/conference2004

13th World Clean Air and Environmental Protection Congress and Exhibition

London, United Kingdom
August 22-27, 2004
Web Site: http://www.kenes.com/cleanair

Forests Underchanging Climate

Oulu, Finland
August 27-31, 2004
Web Site: http://iufro.ffp.csiro.au/iufro

International Conference for the Ten-Year Review of Implementation of the Barbados Programme of Action

St. Louis, Mauritius
August 28- September 3, 2004
Web Site: http://www.un.org/esa/sustdev/sids/sids.htm

September

Nineteenth World Energy Congress

Sydney, Australia
September 5-9, 2004
Web Site: http://www.tourhosts.com.au/energy2004

Ad Hoc Expert Group on Consideration with a View to Recommending the Parameters of a Mandate for Developing a Legal Framework on all Types of Forests

New York, United States
September 6-10, 2004
Web Site: http://www.un.org/esa/forests

Seventh International Conference & Exhibition: Delivering Sustainable Coasts: Connecting Science and Policy

Aberdeen, United Kingdom of Great Britain and Northern Ireland
September 20-22, 2004
Web Site: http://www.biodiv.org/events/www.littoral2004.org

Monitoring Science and Technology Symposium: Unifying Knowledge for Sustainability in the Western Hemisphere

Denver, Colorado, United States
September 22-24, 2004

Sources: Calendar

http://www.sdgateway.net/events/default.asp
http://www.iisd.ca/upcoming/linkagesmeetings.asp?id=1
http://www.unep.org/
http://www.ictsd.org/
http://www.un.org/partners/
http://biodiv.org/events

If you know of an event that you would like publicized in an upcoming issue of Sustainable Development Law & Policy, please contact us at: sdlp@wcl.american.edu

NOTES

Notes

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Special Issue - Summer 2004

Prior Informed Consent:

Emergence as a Principle of International Law, and Implementation at International, National and Local Levels

Stemming from a conference in the spring of 2004 at American University Washington College of Law, co-sponsored by American University Washington College of Law, CIEL, and Sustainable Development Law & Policy.

This issue will focus on the development of the principle of prior informed consent in international law. It will look at the rights that the principle establishes for national governments, local communities, and other indigenous people and at how they are applied in a variety of different contexts, for example, biosafety, persistent organic pollutants, dams and extractive industries, and genetic resources. It will also consider the challenges that arise in implementing this principle at the international, national, and local levels.

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