

# The Environmental FORUM<sup>®</sup>

*Advancing Environmental Protection Through Analysis • Opinion • Debate*



## **Stepping Stones**

*Incremental Progress  
on Climate Change*

## **Foundations**

*The Seven Pillars  
of Sustainability*

## **Rocket Docket**

*EPA Decides to  
Regulate Perchlorate*

# Foundations of Sustainability

*What are the core elements of sustainable development? In the run-up to the 2012 U.N. Conference on Sustainable Development, two long-time leaders in the area, coming from countries with different levels of industrialization, put their emphasis on national governance systems*



**Scott Fulton** is the General Counsel of the U.S. Environmental Protection Agency and **Antonio Benjamin** is a Justice of the High Court of Brazil (STJ). The views expressed are those of the authors and do not necessarily reflect the views of either the government of the United States or of Brazil.

In her seminal 1962 work *Silent Spring*, Rachel Carson presented a key question to the present generation: How can the benefits of modern society be enjoyed in a manner that avoids endangering public health and the natural resources upon which humanity's future depends? In the years since, countries around the world, with different legal systems and different levels of development, have refined and expanded this concept. The U.N. Conference on Sustainable Development in June 2012 marks the 40th anniversary of the 1972 Stockholm conference, the first major U.N. environmental conference, the 20th anniversary of the Rio de Janeiro Conference on Environment and Development, and the 10th anniversary of the Johannesburg World Summit on Sustainable Development. The 2012 event offers a propitious moment to take stock of that progress and to ask: What are the ingredients that have made for success in sustainable development in the past several decades, and how can we reinforce these factors in a world of rapid change?

The U.N. Conference on Sustainable Development will have two themes: a green economy in the context of poverty eradication and sustainable development; and the institutional framework for sustainable development. Since the 1992 Earth Summit, effective national and local environmental governance has increasingly been recognized as key to the second theme and to fulfilling sustainability aspirations. Likewise, while green economy discussions have focused on a range of issues including renewable energy, efficiency,

and ecosystem services, implementation will depend on effective national and subnational environmental governance. Without good governance, neither global nor domestic aspirations can be realized.

Increasing international recognition of the importance of national and local environmental governance to sustainable development has been reflected in a variety of international instruments, including the 1992 Rio Declaration and the Plan of Implementation from the 2002 World Summit on Sustainable Development. Here, we seek to reanimate this thinking by giving greater context and detail to the precepts of national environmental governance and by pointing to the central role of such precepts to the environmental pillar of sustainable development.

There have been many efforts to address individual features of environmental governance, for example, by training environmental inspectors, prosecutors, and judges. These efforts, while quite valuable, are often isolated and can miss the importance of addressing environmental governance as a system comprising a number of inter-related and reinforcing parts. This system includes environmental laws, implementation mechanisms, accountability regimes, and institutional arrangements. Together, these elements, if appropriately resourced, provide the foundation for environmental protection and conservation of natural resources, in support of sustainable development. They are also key to the emergence of the rule of law in the environmental arena — a state of being in which there is the presence of, respect for, and observance of environmental norms. Indeed, the ingredients of en-

environmental rule of law and effective environmental governance are virtually coterminous.

Effective national environmental governance complements efforts to improve international environmental protection mechanisms. For example, multilateral environmental agreements are typically implemented through corresponding national laws and institutions. Effective national environmental governance helps ensure that parties to international environmental agreements actually achieve the benefits those agreements are designed to provide, and it provides mechanisms for addressing national and subnational problems that do not receive the same degree of global attention. Further, effective environmental governance contributes to a level playing field for businesses operating globally and helps avoid the emergence of pollution havens, while promoting regulatory coherence conducive to investment needed for development.

**E**nvironmental laws and regulatory frameworks around the world continue to evolve in response to changing conditions. While countries differ in terms of their most acute environmental problems, their cultural context, and their governmental structure, there is significant commonality both in the challenges they face and in the governance precepts to which they have turned to address those challenges. We identify below some of the key common precepts that have emerged. These precepts should not be viewed in isolation, but as interrelated and mutually reinforcing.

Seven core precepts form a basis for effective national (and subnational) environmental governance. They apply both to efforts to protect human health and to protect and conserve natural resources. Our hope is that identifying and reinforcing these core precepts can help countries strengthen their environmental governance systems and thereby make sound, science-based decisions. Improved international coordination to strengthen national environmental governance will help forge a path toward global sustainability.

*Environmental laws should be clear, even-handed, implementable, and enforceable.* For governance systems to be effective, laws should provide a clear roadmap for translating general legal mandates to facility-specific requirements through such tools as implementing regulations and permits. The use of clear, enforceable language, often with reference to science-based reference points, is critical. This provides clarity

to the regulated community regarding requirements and reporting protocols, facilitating compliance.

Laws and regulations should also be even-handed in their design and application, ensuring consideration of the vital interests and views of all stakeholders. This may be achieved in part through mechanisms for stakeholder input into regulatory processes before final decisions are made. In many countries, environmental law (sometimes including constitutional provisions) is increasingly constructed to reflect sensitivity to human rights and related notions of justice, equity, and poverty eradication.

A central premise of many environmental laws is that prevention is superior to remediation because some harm is irreparable, and because cleanup is more costly than prevention. A combination of technology requirements and ambient norms are used in many systems to achieve such goals. Where governmental capacity is limited, technology-based requirements can serve as a relatively straightforward first step, with ease of application and proven effectiveness. Today there are technology reference points available for most types of polluting activities. Clearinghouses to match available technologies with facility operations can aid implementation. In imposing technology requirements, care should be taken to avoid inhibition of innovation. Many laws contemplate that as programs mature, requirements should be based on ambient environmental goals, with individual interventions increasingly geared toward aligning incentives with desired environmental outcomes, often using monitoring data and other scientific information as reference points for decisionmaking and performance assessment.

Environmental laws often provide for review and renewal of standards, to provide a means of updating requirements based on new knowledge. Anti-backsliding mechanisms may also be included to promote continual improvement or at least guard against regression. Laws commonly use measures to make accountability mechanisms more efficient, such as requiring polluters to self-monitor and report violations, limiting defenses that can be raised in enforcement cases, and curbing opportunities to challenge regulatory agency decisions beyond a set timeframe. The laws must also be designed to resonate with and advance the other core environmental governance precepts discussed below. Thus, environmental laws should include clear articulation of mechanisms that ensure accountability, specify reporting and information disclosure requirements, establish procedures for stakeholder involvement, address institutional structure for program implementation, reduce the possibil-

ity of corruption, and provide for dispute resolution. Finally, it bears note that proper drafting is only the beginning. Laws that are enacted but not implemented or enforced will fail to achieve desired environmental results.

*Environmental information should be collected, assessed, and disclosed to the public.* Routinely making environmental information available to the public enables civil society to take an active role in ensuring accountability, reinforcing and expanding upon government accountability efforts. It also fosters community engagement and development of an environmental ethic throughout civil society, industry, and government. This precept is of course only meaningful to the extent that an active government effort is underway to monitor and assess environmental conditions and polluting activities. Systematic information collection and assessment can support review of environmental program and policy effectiveness and thereby improve performance.

Many countries have freedom of information laws requiring government disclosure of a wide range of information and limiting exceptions to promote transparency. But the mere existence of a disclosure law is only part of the dynamic; public demand, governmental readiness and capacity to manage and provide information, and procedures for resolving disclosure disputes are also needed.

In recent years, the idea of a publicly available Pol-

lutant Release and Transfer Registry (an example being the Toxics Release Inventory in the United States) has emerged as an important tool for creating pressure to reduce pollution. PRTR systems require public disclosure of pollutant release information, often via the internet. Because of public accessibility to this information, company managers who have the power

to prioritize actions to reduce pollution tend to pay more attention. Accounting for pollutant releases also exposes waste in production processes, encouraging adjustments towards more efficient materials management.

Public access to environmental compliance data reported by the regulated community or amassed by government serves many of the same goals. Generally, reported information can inform public debate and consumer behavior, and leverage competitive pressure and reputational risk as motivators. It also provides vital information to communities on pollution that may directly affect them.

*Stakeholders should be afforded an opportunity to participate in environmental decisionmaking.*

Regulated entities and civil society should have an opportunity to engage regulators regarding rules that affect them before decisions are made as well as the opportunity to challenge government decisionmaking not grounded in science and law. A range of public engagement processes may be appropriate, depending on the type of action, timing considerations, and other factors. Communication and education efforts can

### ***Countries around the world are developing environmental governance systems based on these core precepts***

#### EFFECTIVE LAWS

Environmental laws should be clear, even-handed, implementable and enforceable.

#### DISCLOSURE

Environmental information should be collected, assessed, and disclosed to the public.

#### PARTICIPATION

Stakeholders should be afforded opportunities to participate in environmental decisionmaking.

#### ACCOUNTABILITY

Environmental decisionmakers, both public and private, should be accountable for their decisions.

#### AUTHORITY

Roles and lines of authority for environmental protection should be clear, coordinated, and designed to produce efficient and non-duplicative program delivery.

#### DISPUTE RESOLUTION

Stakeholders should have access to fair and responsive dispute resolution procedures.

#### PUBLIC INTEGRITY

Public integrity in environmental program delivery is essential to achieving environmental protection.



enhance public awareness and understanding needed for effective public participation, and can also nurture development of an environmental ethic that can serve to further intensify public engagement.

Countries increasingly pay particular attention to ensuring the poor and disadvantaged are not excluded from meaningful environmental decisionmaking, often under the label “environmental justice,” which contemplates the fair treatment and meaningful involvement of all people regardless of race, color, religion, national origin, or income in the development and implementation of environmental laws and policies. It might take special efforts to reach out and engage such communities because of language, cultural differences, or economic disparities. An empowered citizenry is more apt to channel its concerns through legal mechanisms rather than through civil disobedience or other extra-legal means, and is more likely to understand and be accepting of outcomes, while non-involvement breeds suspicion and disaffection.

*Environmental decisionmakers, both public and private, should be accountable for their decisions.* Effective environmental governance systems hold government decisionmakers accountable for making decisions grounded in science and law, thereby ensuring confidence in the impartiality and public purpose of their actions. Effective environmental governance systems also hold polluters accountable for compliance with environmental requirements and for remediating environmental damage. As a general rule, the polluter pays: the costs of environmental remediation should be borne by the entity that produced those costs through their polluting activities, rather than by the public at large.

Robust government enforcement mechanisms are necessarily the leading edge of the effort to deter violations and level the regulatory playing field. Compliance assistance, reporting requirements, inspections, monitoring, and administrative, civil, and criminal enforcement authorities can all play important roles in an enforcement system. Enforcement remedies include halting the violation, requiring remediation, through injunctive relief or related tools, and assessing financial sanctions. Financial sanctions must be sufficient to deter noncompliance. Unless a penalty exceeding the economic benefit of noncompliance is recovered, violators can obtain an unfair advantage over their competitors who comply.

Enforcement actions should endeavor to treat like violations in like fashion, providing a level playing field of expectation and response. Equivalent and non-discriminatory treatment should be also afforded to

national and foreign actors, and governments should ensure transparency such that improper influences are exposed to public scrutiny.

Direct citizen legal action against polluters has become an important feature in some countries. Such citizen actions can reinforce the backbone of government enforcers and complement their efforts. Direct citizen legal action can also enhance the system of checks and balances on government behavior that lacks vigilance or is not grounded in science and law.

*Roles and lines of authority for environmental protection should be clear and coordinated.* Roles within government should be defined and coordination mechanisms established to foster efficiency and prevent conflicting expectations. Rules and protocols are often needed to direct traffic and achieve both horizontal and vertical coherence in the division of labor between and within different institutions. This is the case whether a government system is centralized or decentralized.

Laws should specify whether environmental programs will be administered by an agency independent of other governmental programs. In some instances, regulatory functions can be compromised if they are housed together with business-enabling functions. It is important that laws define implementing agency structure to ensure that regulated community self-interest does not predominate over the implementing agency’s public interest mission.

Formally structured inter-agency relationships (rather than those created on an ad hoc basis) can enhance effectiveness. Roles can be set out in laws, regulations, or other instruments (e.g., memoranda of understanding) to minimize competition and prevent conflict. Ministries with overlapping authorities in the environmental arena often develop memoranda of understanding to promote cooperation and efficiency.

When multiple levels of government are involved, effective governance necessitates a clear division of labor between national, provincial, and local levels. Which level of government has implementation primacy — for example, which level will issue pollution permits — should be clearly specified, and mechanisms should be created to address contingencies such as implementation failure by provincial or local governments.

*Affected stakeholders should have access to environmental dispute resolution mechanisms that are fair and responsive.* The judiciary (including, in some countries, administrative courts) plays a vital role as the guarantor of the protective benefits of environmental law. Moreover, what judges treat as important, a so-

ciety comes to judge as important. Thus, the courts' response to environmental problems can have a powerful transforming effect across society, with the seriousness of judicial attention and response projecting to the regulated community and the public at large the importance of environmental quality and the unacceptability of behaviors that jeopardize the environment. The judicial response can serve as a powerful catalyst toward the solidification of the environmental rule of law and the development of an environmental ethic — an ethic that, once it takes hold, can engender a sense of responsibility in all sectors of society, inspire citizens to think green and buy green, and encourage businesses to respond to green consumer demand and to their own emergent corporate environmental conscience.

Fair and responsive dispute resolution requires impartiality, independence, and timely review by the reviewing tribunal. In light of the irreversibility of some health impacts and environmental harms, justice delayed can be justice denied. Transparency in the dispute resolution process promotes a sense of fairness and furthers development of the environmental rule of law. These goals and faith in the even-handedness of the system are also advanced when affected persons are accorded a forum to present their claims on the public record with written resolutions that articulate the basis for a decision and are made public. Such written resolutions can also serve to educate the regulated community and affected citizens about environmental requirements and the importance of environmental protection.

Courts in different countries utilize a variety of mechanisms for dealing with the complexity of environmental cases, including special masters and other court appointed experts, strict liability standards, shifting burdens of proof to the polluter on some issues, and environmental courts. Traditional judicial prerogatives, such as invocation of the courts' coercive power to enforce judgments and their ability to maintain jurisdiction to effectuate a remedy, remain of central importance as well.

The principled and even-handed administration of justice includes producing consistent, predictable results in like cases and a financial sanction baseline that eliminates the economic benefit of noncompliance. Doing so promotes cost internalization, incentivizes compliance and eliminates market disparities between compliers and non-compliers.

*Public integrity in environmental program delivery is essential to achieving environmental protection.* Corrupt and unprincipled environmental decisionmaking frustrates program implementation, distorts environ-

mental results, and erodes public confidence in the environmental rule of law. Although the health and other dividends of environmental protection generally far exceed in value the private cost of compliance, and a strong regulatory regime can encourage innovation and foster economic growth, the cost of compliance can be significant to individuals. Thus, implementing anti-corruption measures is vital to reduce the potential for graft and bribery of officials such as inspectors, enforcers, and permitting officers. Standards of ethical conduct and strong, independent review or audit mechanisms are essential, and whistleblower protections, which encourage employees to report employers' misdeeds by creating protection from reprisal, can offer a further check against improper behaviors.

Judicial professionalism, independence, and impartiality can likewise be enhanced via a code of conduct that provides for financial disclosure and, when there is a conflict of interest, disqualification. Provision for judges' financial security and protection from political retaliation can help as well in ensuring integrity.

**W**hile there have been laudable efforts in the past to enhance environmental governance, such efforts have been isolated and sporadic. What constitutes effective environmental governance has not to date been reduced to a commonly accepted set of ideas around which the world community might more meaningfully organize and mobilize. Recognition of the common precepts of an effective governance system built on the rule of law can, we believe, offer both a meaningful step in this direction and a pivotal move in the direction of sustainable development. The lessons of the past decades illuminate these precepts, which we have attempted to describe briefly in this article. Our hope is that this articulation can help catalyze an international dialogue on this topic, with the 2012 United Nations Conference on Sustainable Development perhaps serving as a watershed moment both for elevating the importance of effective national and subnational environmental governance as a key building block for sustainable development and for enhancing international engagement in the effort to build environmental governance capacity.

*The authors wish to express their appreciation to Tseming Yang and Steve Wolfson for their assistance on this article.*