



PATRICK DOUGHERTY, *Na Hale 'o waiawi*, The Contemporary Art Museum, Honolulu, Hawaii, 2003.

Strengthening the Global Environmental Treaty System

Despite the huge media attention environmental treaties receive, the system of making and implementing them is barely functioning.

The global environmental treaty-making system—the set of mechanisms by which countries fashion agreements to promote more sustainable development—is not working very well. More than 400 multilateral agreements such as the Kyoto Protocol on climate change now exist, and new treaties are continually being added that address a wide range of problems, including the loss of endangered species and habitats, increasing levels of ocean dumping, the unregulated transshipment of hazardous substances, and desertification. Yet there is no evidence to suggest that the problems these treaties are intended to address are being corrected. There is a variety of reasons why the “system” isn’t working and a number of ways it could be strengthened.

The system is actually quite undeveloped. There are few if any rules regarding the number of countries that must sign a treaty before it can come into force. The penalties for failing to meet treaty obligations are rarely made explicit, and

the extent to which countries that have not signed a treaty are legally bound by the standards that the rest of the world has adopted is still a matter of speculation. Enforcement of global environmental treaties is practically nonexistent. The administrators of treaty regimes are, as Abram and Antonia Chayes point out in their book *The New Sovereignty*, forced to seek “compliance without enforcement.” In a strange turn of events, elected political leaders can get credit domestically for signing a global agreement even if they have no intention of seeking ratification of the agreement from their Parliament or Congress. Environmental treaty regimes are administered by a series of ad hoc secretariats, not by a single United Nations (UN) agency and depend entirely on funding donated by a handful of the countries they are supposed to be regulating. Finally, scientific input into the writing of each treaty and the monitoring of implementation efforts are entirely catch-as-catch-can.

There are a number of ways in which the treaty-making system could be improved. Four in particular stand out:



increasing the role of “unofficials” in treaty drafting and implementation, setting more explicit adaptive management targets, offering financial incentives for treaty compliance, and organizing regional science advisory panels to enhance the level of scientific advice available to all nations.

Key environmental treaties

Treaties or multilateral environmental agreements (MEAs) are the products of negotiations among groups of countries. One of the most successful is the Vienna Convention for the Protection of the Ozone Layer (and the follow-up Montreal Protocol). It reversed the rate at which stratospheric ozone-depleting chlorofluorocarbons (CFCs) are emitted into the atmosphere by banning them. On the other hand, the Biodiversity Convention and the Climate Change Convention, which were signed by more than 150 countries at the 1992 Earth Summit, have not even begun to reverse the growing loss of biodiversity or the threat of global warming. Other hoped-for treaties, including some such as the Global Forest Protection Treaty that have been under discussion for decades, have not yet emerged.

For many treaties, the problem is that the goals set are so modest that even if implemented, they would not reverse the trend that triggered the problem-solving effort. The Convention on Wetlands of International Importance, the Convention on International Trade in Endangered Species, and the Convention on Persistent Organic Pollutants seek to slow the rate at which a resource is lost or pollution occurs, but under the best of circumstances, they won't be sufficient to reverse or mitigate the adverse effects that have already occurred.

Other MEAs have simply not been ratified by key countries. The United States, for instance, has not ratified the Kyoto Protocol, the United Nations Convention of the Law of the Sea, or the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes. Even when countries have signed and ratified treaties, they have been slow to bring their national legislation into conformance with their treaty obligations.

In quite a few instances, the responsibilities of signatory countries for meeting timetables and targets are vague. In general, we have relied on what might be called a two-step convention-protocol process. First, usually after a decade or more of talks among a limited number of countries, a convention is adopted indicating that a problem exists and exhorting countries to do something about it. That's about all the Climate Change Convention accomplished. Once a convention is ratified, the signatories agree to meet every year or so to talk about ways of adding protocols that spell

Patrick Dougherty

Combining carpentry skills and a love of nature, North Carolina artist Patrick Dougherty incorporates primitive building techniques and experiments with tree saplings as construction material.

His first work *MapleBodyWrap* was included in the 1982 North Carolina Biennial Artists' Exhibition sponsored by the North Carolina Museum of Art. In the following year, he had his first one person show, *Waiting It Out In Maple*, at the Southeastern Center for Contemporary Art in Winston-Salem, North Carolina. His work quickly evolved from single pieces on conventional pedestals to monumental-scale environments, which required saplings by the truckloads. During the past two decades, he has built over 150 works throughout the United States, Europe, and Asia.

Additional information about Patrick Dougherty's work, upcoming exhibitions, and catalogues can be found on his website (www.stickwork.net).

Opposite: all by PATRICK DOUGHERTY, (clockwise from top)

Childhood Dreams, Desert Botanical Garden, Phoenix, Arizona, 2007.

Jug or Naught, Fredric Meijer Gardens, Grand Rapids, Michigan, 1999.

Owache, Northern Illinois University, Dekalb, Illinois, 1999.



out more specific timetables and targets. Thus, the Montreal Protocol was a 1990 amendment to the 1987 Vienna Convention. The protocol called for a total phase-out of a list of CFCs by specific dates. It also scheduled interim reductions for each chemical and called on the signatory countries to reassess relevant control measures every four years. During the time that the protocol was under discussion, there was considerable disagreement regarding the scope of the problem, the level of production cuts required, and the provision of aid to developing nations to enable compliance with phase-out targets. The discovery of a hole in the ozone layer (over the South Pole), along with the availability of less-polluting aerosol alternatives, settled the scientific debate and prompted relatively quick action.

In general, financial resources have not been adequate to enable or ensure treaty compliance. There are no general funds available at the global level to help cover the cost of treaty implementation. On occasion, some of the most developed nations, with the help of multilateral institutions such as the World Bank, volunteer to contribute small amounts of money through a foundation-like entity called the Global Environmental Fund (GEF) to assist developing nations in meeting their treaty obligations. Often, though, the politics of allocating these funds mean that money must be set aside for each region despite overwhelming needs in one location or the scientific merit of grant proposals from particular countries.

Although most treaties require each signatory nation to submit regular progress reports, the treaty secretariats rarely,

if ever, have sufficient technical staff to review the accuracy of the information submitted or assist countries that need technical support. The progress reports submitted by some countries often contain information that is questionable.

Some nations don't take their treaty obligations seriously. They sign and even ratify treaties, but they don't adopt national standards consistent with MEA requirements. In some instances, although they adopt appropriate legislation, they don't or can't enforce the standards.

Let's look more closely at the five key reasons why global environmental treaty making has not produced more impressive results.

The system for creating and enforcing MEAs is still relatively undeveloped. The need to balance science and politics has not been elaborated. At the outset, when countries meet to talk about the possibility of taking collective action, they are often quite skeptical or suspicious of the scientific claims offered by others regarding the scope of the problem. Even if credible scientists or scientific agencies have published relevant research, the political and economic implications of having to make reforms of various kinds lead some countries, particularly the poorer nations, to question the scientific basis for action. Typically, there are no results from a global research program in hand when countries are first asked to adopt a convention. It may seem strange that dozens of countries would pass the equivalent of a global law saying that there is a serious problem requiring global attention before they have the scientific research to back them up, but it is only after a convention is enacted that

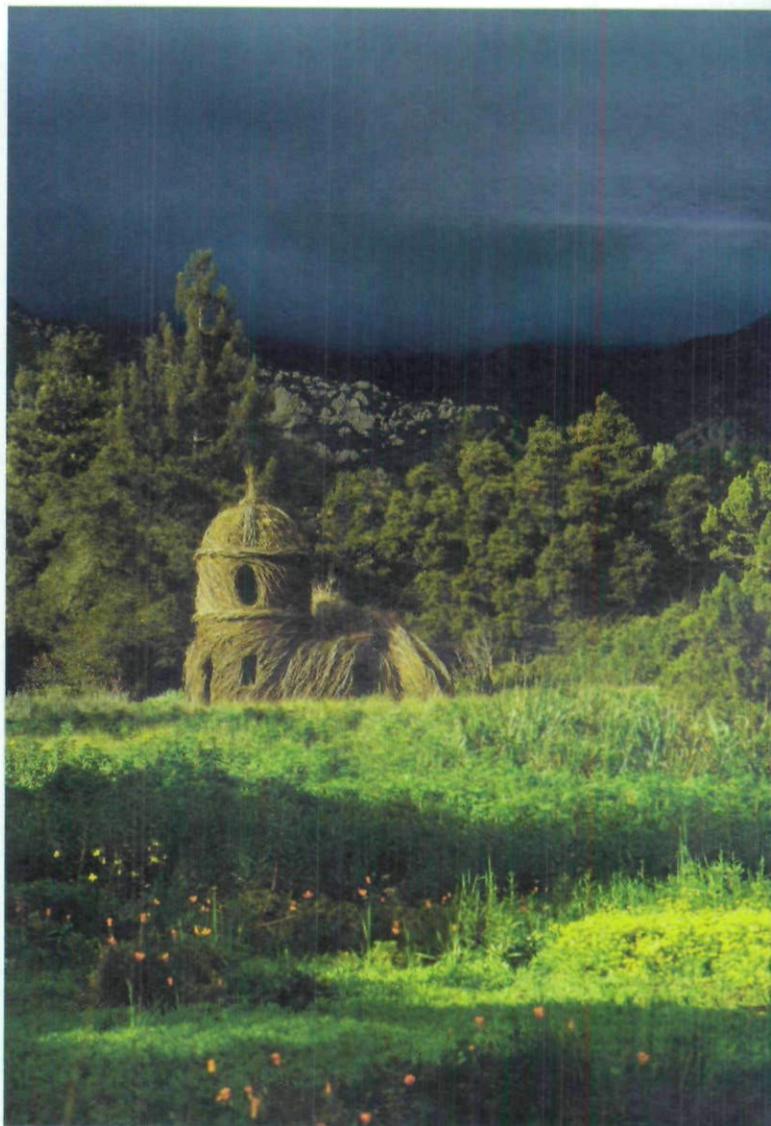
there is a chance of putting together sufficient funding to undertake a worldwide inquiry. What this means, though, is that the scientific basis for taking action is often scanty at the time countries are asked to act.

Global environmental agreements will always reflect political as well as scientific considerations. This means that decisionmaking is always politicized: Some countries are bound to resent the claims of others (and of nongovernmental entities) that they see as threats to their sovereignty. In general, throughout the treaty-making process, politics dominates scientific considerations. We often see "instructed science" masquerading as detached inquiry when experts from one or more countries are forced to take stands that are contrary to their best scientific judgments. If they don't comply, they will be replaced. Thus, there is little or no balance between science and politics in treaty making and treaty enforcement.

No single institution has responsibility for building institutional treaty-making capacity. There is no central agency, no UN Environmental Treaty-making and Enforcement body, to oversee multilateral treaties dealing with natural resources or sustainable development. The UN Development Programme, the World Bank, the UN Environment Program, and a long list of global agencies have all weighed in at different times, but there is very little coordination among the many independent treaty secretariats.

Ongoing North-South tensions get in the way. Efforts to formulate and implement new global environmental treaties have been slowed by continuing tension between developed and developing countries. The G-77 nations have repeatedly taken the stand that the developed countries should first do all they can to address various global environmental problems (that they caused) before asking the developing nations to put off development or take costly steps to reduce emissions. The developed world, after all, has been growing in an unsustainable fashion for many decades and is disproportionately to blame for current levels of pollution and unsustainable levels of resource use. In addition, the nations of the South often assert that it is unreasonable for the North to expect the South to take action when the North is unwilling to share new technologies or help to fund Southern capacity-building efforts.

The North asserts that most of the future population growth, increasing demand for energy, and pressure for greater food production will come from the South. Thus, the South ought to be held to the same environmental standards as the North, and the North refuses to sign until the South agrees to participate. The South pleads poverty and demands that the North show good faith by taking action first, shar-



Above: PATRICK DOUGHERTY, *Toad Hall*, Santa Barbara Botanic Garden, Santa Barbara, California, 2005.

Opposite: PATRICK DOUGHERTY, *Close Ties*, Brahan Estate, Dingwall, Scottish Highlands, 2006.



ing technology and providing funds for capacity-building. The two sides continue to wrangle about timetables and targets. The South seeks lower targets and longer time frames to meet them.

We have lost sight of the importance of “common but differentiated” responsibilities. When the Climate Change Convention was signed, it embraced the principle of common but differentiated responsibilities; that is, it acknowledged that global environmental treaties can succeed only if all countries agree to accept a common goal (such as reducing greenhouse gas emissions to sustainable levels) while recognizing that developing countries might need more time and extra assistance (and perhaps be assigned less ambitious goals) than developed countries. The Montreal Protocol gave India and China an extra decade to reach the same targets as most of the developed world.

Some developing nations, such as Brazil, India, and China, the argument goes, should be capable of meeting more ambitious targets than the poorest of the developing nations. In addition, even among highly developed countries, distinctions based on past levels of effort, differences that are a function of resource endowments, and perhaps variations in capabilities already in place might justify variations in assigned goals.

Unfortunately, the United States has backtracked on its commitment to the principle of common but differentiated responsibilities. It is using the unwillingness of the larger, industrializing countries of the G-77 to accept the same targets and timetables as the United States as a reason not to ratify the Kyoto Protocol. Differing timetables and targets for various categories of countries make a lot of sense, but unless the principle is accepted globally, it will be difficult to convince most countries to endorse the treaties they have not yet ratified.

There are few incentives for treaty compliance and few penalties for noncompliance. Most global environmental treaties emphasize sharing the pain rather than sharing the gain. Countries are eager to sign multilateral trade agreements because they want the benefits that being part of a global trading system offers. They are much less inclined to sign environmental treaties, because the presumed benefits won't be realized for some time (if they come at all) in the form of a cleaner, safer, more sustainable environment. The costs, however, must be paid now. Politicians with limited electoral time frames are willing to sign such treaties only if they are pushed to do so.

One way to change this calculus is to reward countries in the short term for joining environmental treaty regimes. If elected national leaders could demonstrate that signing

a MEA entitled their country to immediate economic benefits, they would be more inclined to do so. Unfortunately, few if any revenue streams are linked to environmental treaty regimes, so it is difficult to see how economic benefits might materialize in the short term to encourage membership and compliance.

In addition, there are no financial penalties for noncompliance with global environmental regimes. It is hard enough to get reluctant countries to voluntarily embrace timetables and targets that impose costs but offer no short-term benefits; threatening them with financial penalties for noncompliance would mean that even fewer would join. Of course, if there are no penalties, many countries might be more inclined to sign, but they certainly would have no incentive to comply. Although shaming is one means of pressuring countries to live up to their obligations, it is far from foolproof.

We have allowed the absence of scientific certainty to forestall useful action. We can't afford to wait for scientific certainty before we take global action. For many countries and many ecosystems, it will be too late. If we think there is a chance that critical resources and habitats are about to be eliminated, precautionary steps would seem to be in order. Certainly, with regard to fisheries, we know that waiting too long will cause a fish stock to crash. Once it falls below a sustainable level, it will not recover on its own. Because the systems that global environmental treaties are addressing are so complex, the notion that we should take no action until we are certain about the causes of each problem and the efficacy of proposed solutions means that we will always be too late.

Improving the treaty-making system

Even in the face of all the difficulties described above, there are four major ways in which the treaty-making system can be improved.

First, we should involve "unofficials" more directly in treaty drafting and enforcement. Treaties are official agreements among nations. As such, only elected leaders and their appointed agency staff are invited to the negotiation table to formulate the terms of each MEA. But national leaders often have short-term political agendas that encourage them to look the other way when global environmental treaties are being discussed. Within each country, civil society groups, including environmental and scientific nongovernmental organizations (NGOs), universities, and trade associations, are more likely to take the long view and accept the responsibilities of global stewardship. We need to alter our understanding of the global treaty-making system to encour-



Above: PATRICK DOUGHERTY, *Spinoffs*, Decordova Museum, Lincoln, Massachusetts, 1990.

Opposite: PATRICK DOUGHERTY

Crossing Over, American Craft Museum, New York, New York, 1996.

Just for Looks (detail), Max Azria Melrose Avenue Boutique, Los Angeles, California, 2006.

age civil society representatives to sit at the table at all times.

Bringing civil society to the negotiating table would, in fact, merely be the next step in an evolving trend. Nongovernmental actors are often included in official national delegations. Although only countries will continue to be signatories, unofficials could bring additional scientific understanding and long-term perspective to almost all treaty discussions.

The UN, through its Department of Economic and Social Affairs (ECOSOC), maintains a list of thousands of qualified NGOs. If an organization such as ECOSOC sets and maintains standards for groups seeking to participate in global environmental negotiations, the concerns of some leaders that their in-country opponents will use treaty negotiations to embarrass them would be alleviated. ECOSOC could also invite clusters of nongovernmental actors to caucus to choose their own ad hoc representatives to each treaty negotiation in order to keep the number of unofficials to a manageable scale.

Finally, it would probably make sense to write into all

new treaties monitoring and enforcement roles for civil society, which already exist in some treaty regimes. This would relieve much of the financial and administrative burden on secretariats.

A second way to improve the treaty system would be to set longer-term timetables and adaptive management targets. A huge amount of time is spent debating timetables and targets once a convention is adopted. But it is foolish to think that negotiators can anticipate what almost 200 countries will need to accomplish decades in the future. Rather, it makes more sense to set long-term performance goals (rather than intermediate standards) in each treaty and then specify contingent adaptive management obligations for nations that sign. For example, we can say, as the Intergovernmental Panel on Climate Change has, that the global objective is to achieve carbon dioxide emissions of 450 parts per million by 2040 because that is what it will take (as far as we can tell at present) to avoid the worst effects of global warming. Then, taking an adaptive management approach,



PATRICK DOUGHERTY, *Call of the Wild*, Museum of Glass, Tacoma, Washington, 2002.

we can work back from that scientifically generated goal and set reduction targets for each decade that will make it possible for us to reach the 2040 goal. For each decade, we could then suggest a range of actions each country might take to meet its fair share of the overall reduction target. Then, we could hold countries accountable during mid-decade reviews for adjusting the mix of steps they are taking to ensure that their 10-year obligations are met. The 2040 performance goal that would drive such a treaty could be adjusted each decade as scientific understanding of the systems involved increases.

For an adaptive management approach to work, we need to invest globally in advanced monitoring technology and assign long-term monitoring responsibility as well as leadership of global research efforts to some entity, perhaps the UN, with sufficient funding to build the staff capability required. What we can't do is allow each country to do whatever it wants at whatever pace it prefers.

Third, we should offer financial incentives for ratification and compliance by linking environmental treaties with trade and development assistance. One way to create incentives for countries, particularly developing ones, to sign global environmental treaties and take their fair share of obligations seriously is to link a variety of trade benefits and various forms of development assistance to membership in good standing in multilateral environmental treaty regimes. For example, the World Bank or the other multilateral financial institutions might offer favorable lending rates or even loan forgiveness to countries that sign, ratify, and implement key environmental treaties. Because the development projects these agencies fund sometimes accelerate certain environmental difficulties, this would make it easier for the banks to justify their investments in environmental terms. It might even make sense to require that countries sign, ratify, and implement key global environmental agreements before they are given international assistance for large infrastructure projects.

Because energy production from fossil fuels is at the heart of many environmental problems, it might make sense to encourage developed countries to add to their current taxes a tiny additional tax on all electricity produced from fossil fuels. If developed countries are going to adopt carbon taxes in the next few years as a means of achieving their Kyoto goals, why not divert a small amount of this money into a global fund to support sustainable energy projects? This kitty could be used to encourage developing countries to sign and implement numerous MEAs. The funds would go to countries meeting their global environmental responsibilities.

Some of this money could also be allocated through the GEF to cover general capacity-building efforts in the developing world. However it is done, we need some way of generating a steady flow of funds to encourage developing countries to sign multilateral environmental treaties.

Finally, another incentive to sign MEAs might involve granting favorable technology-sharing agreements to countries implementing the most important global environmental agreements. Countries in the North would still reap a financial return on the sale of "green" technologies, but MEA-complying countries could be given a break on the price. This would be applied whether the technology was being sold or licensed by a country or a company and whether the licensee was a country or a company.

A fourth way to improve the treaty system would be to create standing regional science advisory bodies for clusters of related treaties rather than organize separate committees for every treaty regime. Developing countries are sometimes hard-pressed to find qualified scientists to represent them at all these meetings, and the fragmentation of scientific effort among separate treaty regimes is counterproductive.

A great deal of political acrimony surrounds the selection of science advisory committee members. Trying to balance membership between North and South and among regions in each treaty regime rarely leads to panels that are the best-equipped to provide ongoing technical advice or oversee global research efforts required to enhance treaty implementation. A smaller number of larger regional and sectoral committees would help.

Today, there is no official body with responsibility for improving the global environmental treaty-making system. Science associations around the world should take the lead in drawing attention to the ways in which the current system is failing. They should also suggest possible improvements. It is unlikely that individual governments will advocate for systemic changes while UN organizations are busy contending with each other as they try to hold on to their bureaucratic turf and cope with funding shortages. Thus, the global scientific community will be pivotal in effecting change.

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