

# Revitalizing Global Environmental Governance: A Function-Driven Approach

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## SUMMARY

We advance the case for a Global Environmental Mechanism (GEM) on the basis of our analysis of four key questions: Do we need environmental efforts at the global scale? What functions are essential at the global level? Where has the existing system fallen short? What would an effective institutional mechanism for addressing global environmental problems look like?

Our central argument is that there exists today a set of inescapably global environmental threats that require international “collective action.” They demand an institutional mechanism at the global level, we argue, but one quite different from traditional international bodies. We propose *not* a new international bureaucracy but rather the creation of a Global Environmental Mechanism that draws on Information Age technologies and networks to promote cooperation in a lighter, faster, more modern, and effective manner than traditional institutions.

We see three core capacities as essential to a GEM: (1) provision of adequate information and analysis to characterize problems, track trends, and identify interests; (2) creation of a policy “space” for environmental negotiation and bargaining; and (3) sustained build-up of capacity for addressing issues of agreed-upon concern and significance. We envision a GEM building on the expertise of existing institutions and creating new mechanisms where key functions are currently not being provided or are inadequate.

**A NEED FOR EFFECTIVE ENVIRONMENTAL INSTITUTIONS**

Ten years after the Rio Earth Summit, and thirty years after the Stockholm Conference on the Human Environment, the world community lacks effective institutional and legal mechanisms to address global-scale environmental degradation. This deficiency weighs ever more heavily as nation-states come to recognize their inability to address critical problems on a national basis and to appreciate the depth and breadth of their interdependence.

Devised during the infancy of environmental awareness, when problems were perceived as largely local, relatively distinct, and subject to technological fixes, the current international environmental regime is weak, fragmented, lacking in resources, and handicapped by a narrow mandate. There is motion, but there is little progress. More than 500 multilateral environmental treaties are now in existence (UNEP, 2001), more than a dozen international agencies share environmental responsibilities, and yet environmental conditions are not improving across a number of critical dimensions. Problems such as climate change, ocean pollution, fisheries depletion, deforestation, and desertification persist – with trends that are often broadly negative. Moreover, advances in a range of ecological sciences continue to unveil new threats to the global commons – from airborne mercury to disrupted hydrological systems – as well as new interrelationships among issues.

The environmental challenges we now face clearly illustrate the extent of interconnectedness of the earth's ecological as well as economic systems. These problems demand collective action on a global scale, yet there is no established and effective forum where parties can engage in a sustained and focused dialogue, identify priorities, and devise action plans for tackling environmental concerns with worldwide implications. Absent a vibrant international environmental body, many decisions with serious environmental repercussions are taken within the economic, trade, and finance institutions, where short-term economic priorities often trump long-term sustainability.

Some of the current failings can be attributed to a history of management shortcomings and bureaucratic entanglements, but other aspects of the problem are deeper and more structural. Governments have failed to create a functional institutional architecture for the management of ecological interdependence. The fact that other glob-

al challenges – international economic affairs, population control, and various world health problems (e.g., eradication of polio and small pox) – have been addressed more successfully is notable.

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**The disconnect between environmental needs and environmental performance in the current international system is striking. New institutional mechanisms for better global governance are urgently needed.**

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The haphazard development of international environmental laws and agencies has left three important institutional gaps in the existing global environmental governance system: (1) a jurisdictional gap, (2) an information gap, and (3) an implementation gap.

#### **Jurisdictional Gap**

The discrepancy between a globalized world and a set of inescapable transboundary problems on the one hand, and a dominant structure of national policymaking units on the other, has led to a gap in issue coverage. National legislatures often do not see their role in addressing worldwide transboundary harms, while global bodies often do not have the capacity or the authority to address them.

The United Nations lacks a coherent institutional mechanism for dealing effectively with global environmental concerns (Palmer, 1992; Esty, 1994). The UN Charter provides for no environmental body. Responsibilities are instead divided among a suite of agencies, including the Food and Agriculture Organization, the World Meteorological Organization, the International Maritime Organization, the International Oceanographic Commission, the UN Educational, Scientific and Cultural Organization, the Commission on Sustainable Development, the Global Environment Facility, and the UN Development Programme, with a coordinating and catalytic role assigned to the UN Environment Programme (UNEP). Adding to this fragmentation are the independent secretariats to the numerous treaties, all contending for limited governmental time, attention, and resources. The Economic and Social Council of the UN has the gar-

gantuan task of coordinating all of these diffuse efforts and has proven incapable of carrying out its mission (Palmer, 1992).

A mere program in the UN system, UNEP has accomplished more than its limited mandate might seem to make possible and its minute budget might have been expected to allow.<sup>1</sup> UNEP has supported the creation of a large body of international environmental law and has contributed to efforts to generate environmental data, assessments, and reporting. A number of UNEP executive directors have been forceful advocates for change and international environmental cooperation. But UNEP has no executive authority. It has failed to coordinate the various global and regional environmental arrangements around the world and “lacks political clout to serve adequately as the lead international organization for the protection of the global environment” (Dunoff, 1995).

The scattering of environmental activities across many international organizations has greatly compromised participation, especially that of developing countries. Negotiations on a variety of critical pollution control and natural resource management issues often occur simultaneously around the world. Moreover, the costs associated with attending intergovernmental sessions to negotiate international environmental agreements and treaties are high, both in terms of direct economic expenses and opportunity costs of days away from the already understaffed environmental ministries.<sup>2</sup> Countries with limited diplomatic and financial resources have thus been forced to choose which conferences to attend, or whether to attend them at all (Kelly, 1997).

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<sup>1</sup> UNEP was created following the Stockholm Conference in 1972 with the mandate “to provide leadership and encourage partnership in caring for the environment by inspiring, informing and enabling nations and peoples to improve their quality of life without compromising that of future generations” (UNEP, 2001): <http://www.unep.org/about.asp> Its annual budget of \$100 million is comparable to that of many environmental non-governmental organizations (NGOs), such as the U.S. National Wildlife Federation (Kelly, 1997).

<sup>2</sup> Edith Brown Weiss (1995) points out that “A normal negotiation may require four or five intergovernmental negotiating sessions of one to two weeks each during a period of eighteen months to two years. The Climate Convention negotiations required six sessions of two weeks each in less than sixteen months. Despite this very full and expensive schedule of negotiations, the Climate Convention negotiations were only one of more than a half dozen global or regional environmental agreement negotiations occurring more or less at the same time.”

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**Without an effective forum with an action orientation, rule-making and norm development have been inadequate and left to a chosen few, leading to prolonged discussions, lowest-common-denominator outcomes, and poor results.**

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There is, moreover, no structured system of dispute settlement. Most environmental agreements have no procedures for resolving disputes among parties. A few agreements, notably the UN Convention on the Law of the Sea and the Montreal Protocol, have dispute settlement mechanisms, but these provisions have gone unused. Other treaties, like the Biodiversity Convention and the UN Framework Convention on Climate Change, expressly defer disputes to the International Court of Justice (ICJ). And while the ICJ has set up an “environmental chamber,” it has never heard a case. As a result of the weakness of the environmental institutions, the disputes they might have addressed end up being taken to other fora, such as the World Trade Organization. This pattern leaves those with international environmental claims with no institutional mechanism for redress (Kalas, 2001). This lack of institutional capacity has broad implications:

- Individuals harmed by transboundary effects of state or corporate activities have nowhere to turn;
- The existing bodies have jurisdiction only over *states*. Private actors can neither be brought before the court nor do they have standing to request adjudication;
- Jurisdiction is largely “by consent” and remedies are not enforceable.

### **Information Gap**

As the long-standing literature on international cooperation makes clear, the availability of reliable information is critical to policy formation (Hassan and Hutchinson, 1992; Martin, 1999; Esty, 2001, 2002). In the environmental field, where problems are dispersed across space and time, sound decisionmaking hinges on the availability of information regarding (1) environmental problems, trends, and causal

relationships, and (2) policy options, results, and compliance with commitments. Data collection, “indicator” development, monitoring and verification, and scientific assessment and analysis thus emerge as central to sound decisionmaking.

High quality data with cross-country comparability is necessary to support an effective approach to problem definition and assessment (Esty, 2002). A suite of international organizations, scientific research centers, national governments, and environmental convention secretariats are responsible for data collection and scientific assessment. UNEP has established an Environment and Natural Resources Information Network to help collate, store, manage, and disseminate environmental information and data in developing countries and to assess environment and development issues for decisionmaking, policy setting, and planning. UNDP has launched a similar initiative with its Capacity 21 program. Numerous other international organizations, NGOs, universities, and think tanks have information initiatives underway. However, significant data gaps remain. There is little coordination among data collection efforts, and comparability across jurisdictions is poor (WEF, 2002).

Compliance monitoring and reporting are even more unsystematic, scattered, and informal. International environmental agreements have, until recently, contained few substantive mechanisms for monitoring and evaluation. Although environmental agreements usually require parties to report their compliance to the respective treaty secretariat, few guidelines exist as to the scope or methodology of the reports. Moreover, the convention secretariats often lack the authority and resources to monitor agreements through verification of reported information or through independent assessments. The analysis and publication of collected data is also severely limited. With the proliferation of agreements, countries have found it increasingly difficult to meet their reporting obligations under the various conventions, and nations’ self-reported data are often incomplete, unreliable, and inconsistent (GAO, 1999). UNEP has, in fact, begun to consider the potential of streamlining reporting requirements across similar conventions.

### Implementation Gap

The biggest single obstacle to environmental progress at the global scale is the lack of an action orientation. This might be attributable to an implementation gap. Treaty congestion has led to overload at the national level, where the political, administrative, and economic capacity to implement agreements resides. Many international environmental institutions, including the numerous secretariats of international environmental conventions, have some claim on the administrative capacity of national states. Even industrialized states with well-developed regulatory mechanisms and bureaucracies have become overwhelmed (Brown Weiss, 1995; UNEP, 2001).

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**For developing countries, financial and technology transfer mechanisms are critical. But the efforts to date in these regards are modest and noticeably inadequate.**

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The existing financial mechanisms are scattered across the Global Environment Facility, UNEP, the World Bank, and separate treaty-based funds such as the Montreal Protocol Finance Mechanism. This dispersion and lack of integration reinforces the perception of a lack of seriousness in the North about the plight of the South. The institutional mechanisms for technology transfer have also been less than effective. Tying technology transfer to official aid and export promotion policies has resulted in the imposition of inappropriate technologies on countries with little capacity to choose, assess, operate, and maintain them.

Moreover, few international environmental agreements contain serious enforcement provisions. In most cases, the only incentive for compliance with treaty obligations comes from peer pressure or the threat of public exposure. However, when performance data are scarce, the “name and shame” strategy provides little traction. Even when agreements do include enforcement provisions, resource or other constraints limit their effectiveness. For example, the Northwest Atlantic Fisheries Convention has the authority to establish and allocate fishing quotas, but allows for the exemption of any member from any enforcement proposal through the lodging of an objection. It also

permits members to choose not to be bound by rules already in force. Finally, although members are allowed to board and inspect the vessels of other member nations, only the nation under whose flag the vessel is operating can prosecute and sanction a vessel's owner for violations. Nations are often reluctant to penalize their own fleets. In 1993, for example, out of forty-nine vessels charged with offenses, only six were prosecuted (GAO, 1999).

A multi-pronged agenda of refinements to the existing structure and reforms of UNEP and the other elements of the current international environmental system should be developed to address these glaring gaps in global environmental governance.

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**The list of problems is so long and the baggage associated with the current regime so heavy that at some point a fundamental restructuring rather than incremental tinkering becomes a better path forward.**

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In the face of so many difficulties and the existing regime's poor track record, any presumption in favor of working with the status quo cannot be sustained. Moreover, as the analysis above suggests, the nub of the issue is structural. This fact makes a different starting point and a new institutional design desirable if not essential.

#### **RATIONALE FOR GLOBAL ACTION**

The need for international cooperation to address environmental problems with transboundary or global implications is clear both in theory and in practice. Some environmental problems (local air pollution and waste disposal, for example) are of limited geographic scope and can be handled at the national or local scale. An increasingly large set of issues, however, from persistent organic pollutants to fisheries depletion to climate change, demand an effective response among several jurisdictions and, sometimes, coordinated action across the globe. Governments around the world are beginning to recognize the limits of their ability to tackle transboundary environmental problems on their own.

### Global Public Goods

To understand the need for a new institutional design, it is helpful to understand that the underlying conceptual framework of the environmental problem set central to this framework is the notion of a “public good.”<sup>3</sup> Clean air and an intact ozone layer are classic examples of public goods. While markets are the primary producers of private goods, which are delivered to individual buyers, public goods confer benefits that cannot be confined to a single individual or group. Once provided, they can be enjoyed for free.

The challenge public goods pose is that, unless carefully managed, they trigger behavior that is individually rational but collectively sub-optimal or even disastrous. Since the very nature of public goods is that individual users cannot be excluded, some individuals may choose to “free ride” on the efforts of others rather than contribute resources to the provision of the good in question. It is rational for a fisherman, for example, to try to maximize his personal gain by catching as many fish as possible as quickly as possible. Collectively, however, such a strategy leads to overexploitation of the resource and can result in a “tragedy of the commons” (Hardin, 1968). The fish stock will be depleted, leaving the entire fishing community worse off than it would have been had it found a cooperative arrangement for controlling the rate at which the resources were extracted.<sup>4</sup>

Similarly, in a world of multiple governing authorities and jurisdictions, optimal pollution reduction is unlikely to occur without some structure to promote collaboration. Fundamentally, public goods – including global public goods – will be underproduced without mechanisms to promote cooperation (Kaul, Grunberg, and Stern, 1999). The problem that public goods (especially global public goods) pose, therefore, is one of *organizing* cooperation to overcome the tendency toward what is called in game theory a “lose-lose” equilibrium. The situation must be converted from one in which decisions are made independently based on narrow self-interest to one in which actors overcome the “collective action” problem and adopt cooperative solutions (Ostrom, 1990).

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3 Kaul, Grunberg, and Stern (1999) define global public goods as “goods whose benefits reach across borders, generations, and population groups.” Among these are equity and justice, market efficiency, environment and cultural heritage, health, knowledge and information, and peace and security.

4 As Hardin put it in his seminal piece in 1968, “Ruin is the destination toward which all men rush, each pursuing his own best interest in a society which believes in the freedom of the commons. Freedom in a commons brings ruin to all.”

### Super Externalities

In the environmental arena, the problem of collective action is especially acute where shared resources or pollution harms spill across national boundaries, creating “super externalities” (Dua and Esty, 1997). At the national level, a regulatory agency is usually given authority to direct (and coerce if need be) the behavior of private actors so as to ensure cooperation. In the absence of an overarching sovereign at the global level, the incentives to free ride are even stronger (Young, 1999).

Take the example of the fishing community again. Even if local fishermen could reach an agreement to regulate catch, the tragedy of the commons will persevere unless there is oversight and control over *foreign* commercial fleets. Crucial fisheries have indeed collapsed worldwide as heavily subsidized fleets sweep across thousands of kilometers scooping up fish. In the face of such competition, local fishermen behave “rationally” by rushing to catch more fish more quickly. But in doing so, they generate a “lose-lose” outcome in which everyone is worse off than they might have been had they cooperated. In the words of a Mexican fisherman, “The philosophy is: get it now, grab it – if I don't, the next guy will” (Weiner, 2002).

Global collective action is further hampered by the fact that impacts of “externalities” are often hard to grasp. They are often spread out, both spatially and temporally. In the case of climate change, for example, the abatement and adaptation costs can be transferred not only across space – to other countries – but also over time – to future generations. Cooperation is also difficult to obtain when the impact is unidirectional, i.e., when activities in one country cause damage only in another jurisdiction. Upstream users of a shared river, for instance, have little incentive to limit their extraction of water or curb pollution, as the costs they impose will largely be borne by others downstream. As Whalley and Zissimos demonstrate in this volume, internalization of global environmental externalities through bargains involving financial resources or policy changes will be critical to solving collective action problems and improving environmental quality worldwide.

### Global Environmental Governance Functions

The nature of current and future environmental problems – spanning jurisdictions and generations – requires new governance mechanisms that alter incentives in favor of environmentally sound choices. We see three major sets of functions as critical to addressing the global collective action problem: (1) provision of adequate information on the problems at hand and on whose behavior is contributing to the problem; (2) creation of a forum for sustained interaction, bargaining, and rulemaking; and (3) establishment of concrete mechanisms for implementation of the deals and rules upon which agreement has been reached.<sup>5</sup> A series of functions falls within each of these categories (Figure 1).

Data collection, indicator development, monitoring and verification, and scientific assessment and analysis emerge as central functions in the information domain. A policy space for continued interaction instills a sense of reciprocity, facilitates adoption of common rules and norms, and assists the “internalization of externalities,” tackling potentially contagious phenomena at the source, before they spill across borders. Within the forum function, we thus place issue linkage and bargaining, a mechanism for rulemaking, environmental advocacy within the global regime, a mechanism for inclusive participation, and a dispute settlement framework. Sound and reliable financing mechanisms coupled with appropriate technology transfer would ensure that targets are met. A database of best practices and implementation strategies would further facilitate the implementation of commitments.

### A GLOBAL ENVIRONMENTAL MECHANISM

In our view, a Global Environmental Mechanism (GEM) could effectively respond to both the common elements of national problems and the special demands of transboundary issues and global public goods. Conceptually, a GEM fills the need for a mechanism to promote environmental collective action at the international scale. Practically, it offers the chance to build a coherent and integrated environmental

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<sup>5</sup> See also Haas, Keohane, and Levy (1993) for a similar analysis and an assessment of the causes of institutional effectiveness – what they term “the three Cs” – concern, contractual environment, and capacity.

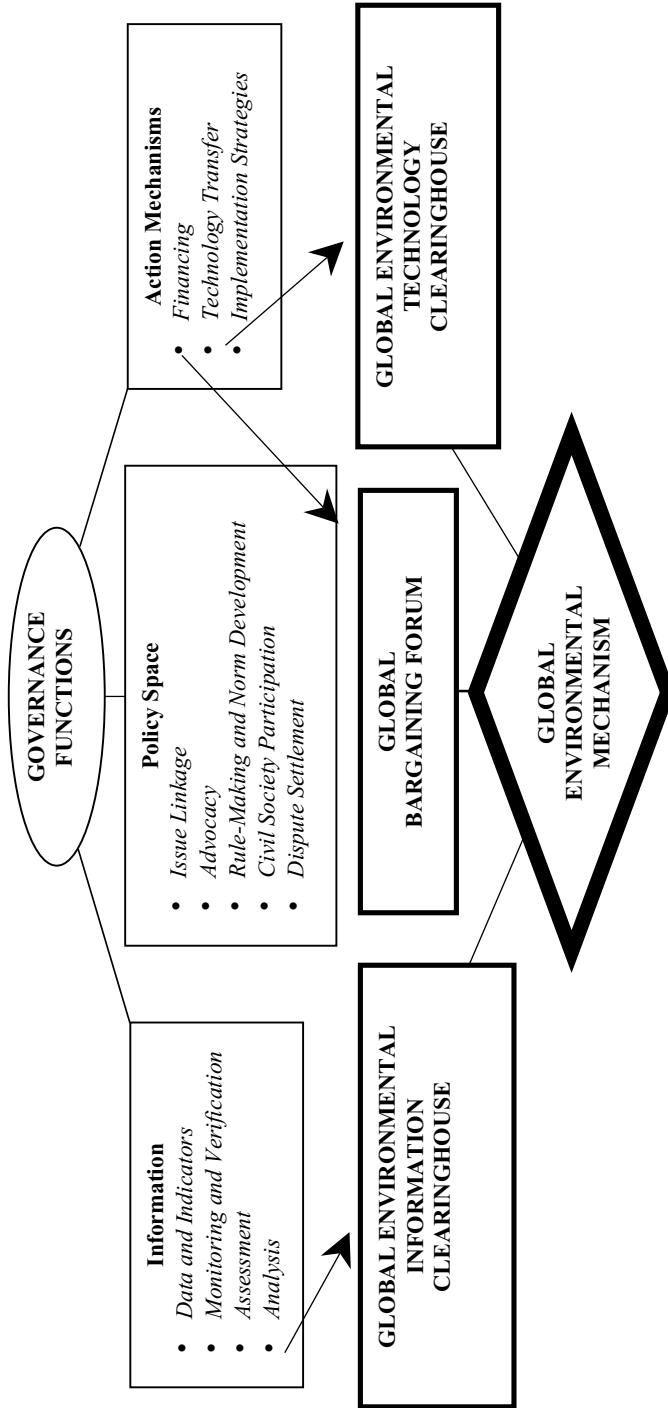


Figure 1 Global Environmental Governance Functions

policymaking and management framework that addresses the challenges of a shared global ecosystem.

We see three core capacities as essential to a Global Environmental Mechanism:

- Provision of adequate information and analysis to characterize problems, track trends, and identify interests;
- Creation of a policy “space” for environmental negotiation and bargaining;
- Expansion of capacities – both global and national – for addressing issues of concern and significance.

We envision a “network-based” GEM that builds on the functioning elements of existing institutions and creates new structures where gaps exist in the current regime. We see a GEM growing organically as consensus develops around issues and needs. A GEM might contain the following elements:

- *A Data Collection Mechanism*, ensuring the availability of reliable data of high quality and comparability, developing indicators and benchmarks, and publishing *State of the Global Environment* reports;
- *A Compliance Monitoring and Reporting Mechanism*, providing a repository for information on compliance with agreements and established norms, and a continuous and transparent reporting effort;
- *A Scientific Assessment and Knowledge Networking Mechanism*, drawing on basic research on environmental processes and trends, long-term forecasting, and early warnings of environmental risks;
- *A Bargaining and Trade-offs Mechanism*, facilitating the internalization of externalities through exchanges of commitments on various environmental issues (forest cover, biodiversity protection, species management, etc.) in return for cash or policy change (market access);
- *A Rulemaking Mechanism for the global commons*, establishing policy guidelines and international norms on protection of shared natural resources such as the atmosphere and oceans;
- *A Civil Society Participation Mechanism*, providing a business and NGO forum for direct participation in problem identification and policy analysis;

- *A Financing Mechanism*, for global-scale issues mobilizing both public and private resources to provide structured financial assistance to developing countries and transition economies;
- *A Technology Transfer Mechanism*, promoting the adoption of best options suited to national conditions and encouraging innovative local solutions;
- *A Dispute Settlement Mechanism*, with agreed procedures and rules to promote conflict resolution between environmental agreements and vis-à-vis other global governance regimes in an equitable manner;
- *An Implementation Strategies Mechanism*, ensuring coordination with institutions with primary implementation responsibility (such as national governments, UNDP, World Bank, business, civil society organizations) and providing a database of best practices.

Through these capacities, the GEM would contribute to the closing of the three institutional gaps we describe – the jurisdictional gap, the information gap, and the implementation gap. For real progress to be achieved, an extraordinary mix of political idealism and pragmatism will be required. If global politics require, the GEM could start modestly and grow over time, progressively gaining new responsibilities and enlarging its mandate as its value is demonstrated.

Because scientific activities represent the dimension of the policy realm where economies of scale and other efficiency gains can most quickly be realized from increased cooperation, a *Global Information Clearinghouse* could become the first concrete step toward the establishment of a GEM. The coordination of existing institutional mechanisms for data collection, scientific assessment, and analysis might attract broad-based support. A *Global Technology Clearinghouse* focusing on information sharing and best practices dissemination might also be launched as an early GEM element. With its competence established in these areas, the GEM mandate might then be expanded to include monitoring, rulemaking, and the development of a *Global Bargaining Forum*. Subsequently, the GEM might acquire a dispute settlement mechanism.

### Global Environmental Information Clearinghouse

An institutional mechanism is needed to channel relevant scientific and technical expertise to the appropriate policy arena. Better environmental data and information make it easier to identify issues, spot trends, evaluate risks, set priorities, establish policy options, test solutions, and target technology development (Esty, 2002). A global information clearinghouse for relevant, valid, and reliable data on environmental issues and trends could shift assumptions, preferences, and policies. In the case of acid rain in Europe, for example, knowledge of domestic acidification damage triggered emission reductions in several countries (Levy, 1993). Simply put, data can make the invisible visible, the intangible tangible, and the complex manageable.

The availability of information on how others are doing in reducing pollution and improving resource productivity tends to stimulate competition and innovation. Comparative performance analysis across countries – similar to the national PROPER scheme in Indonesia<sup>6</sup> – could provide much greater transparency, reward leaders, and expose laggards (Afsah, Blackman, and Ratunanda, 2000). Just as knowledge that a competitor in the marketplace has higher profits drives executives to redouble their efforts, evidence that others are outperforming one's country on environmental criteria can sharpen the focus on opportunities for improved performance. The attention that the World Economic Forum's Environmental Sustainability Index has generated demonstrates this potential (Seelye, 2002; Yeager, 2002).

While data gathering should primarily be the function of local or national organizations, a central repository for such information and a mechanism for making the information publicly available would represent a significant discipline on slack performance (Chayes and Chayes, 1995). An information clearinghouse will, in reality, not centralize science policy *functions* but create a “centralized source for coordinating information flow between the institutions responsible for performing the different science policy functions” (UN University, 2002).

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<sup>6</sup> PROPER (Program for Pollution Control, Evaluation, and Rating) is Indonesia's innovative program for reducing pollution by rating and publicly disclosing the environmental performance of industrial facilities.

### Global Environmental Technology Clearinghouse

Most multilateral environmental agreements contain provisions related to technology transfer as part of the incentive packages for developing countries to meet their obligations under the conventions. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Montreal Protocol on the Ozone Layer, the Convention on Biological Diversity, and the Framework Convention on Climate Change and its related Kyoto Protocol all cite technology transfer as a critical method for achieving concrete environmental improvements. Agenda 21 also underscores the importance of technology transfer to sustainable development.<sup>7</sup>

However, the process of selecting and operating environmentally sound technologies is not as simple and straightforward a process as is sometimes believed. Selecting a technology that is suitable for local needs, adapting it to local conditions, and maintaining it require substantial skills and information. Yet, the recipients of technology transfers have limited access to information and limited technical capacity, underscoring the need for an information clearinghouse on various abatement technologies (Worrell et al., 2001).

An environmental technology clearinghouse could serve as the repository and disseminator of information on available technologies, their sources, their environmental risks, and the broad terms under which they may be acquired. It could also encompass information on best practices around the world, promoting continuous learning. The clearinghouse would thus be critical to the expansion of technological and innovation capabilities in recipient countries. It could address the need “to work out a collaborative model between the North and the South that can cater to both the soft and the hard aspects of technology transfer, be driven by local needs, adapted to the developing country operational environment and sustained through facilitated private sector participation” (Aslam, 2001). In order to be effective, the clearinghouse would also need to provide referrals to other services, including sources of advice, training, and technology assessment.<sup>8</sup>

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<sup>7</sup> See Agenda 21, Chapter 34, “Transfer of Environmentally-Sound Technology, Cooperation, and Capacity-Building,” available at <http://www.igc.org/habitat/agenda21/a21-34.htm>

<sup>8</sup> For a proposal for the creation of international information networks and technology clearinghouses, see Agenda 21, Chapter 34 at <http://www.igc.org/habitat/agenda21/a21-34.htm>

### **Global Bargaining Forum**

A global bargaining forum could act as a catalyst between countries or private entities to negotiate the transfer of resources in exchange for commitments to agreed-upon policies and behavior. Thus, a government in one country might negotiate a deal to preserve a particular natural resource – part of a rainforest, a set of species, etc. – in another country in return for a sum of money or other policy benefits, as Whalley and Zissimos explain in this volume.

Market access, for example, is an issue of paramount economic importance for developing countries, and has been used as a condition for many concessions on issues of interest to the North. Brazil has made a market access agreement in agriculture a precondition for its involvement in a new trade negotiations round. India has made commitments on intellectual property rights in exchange for expanded market access in agriculture and textiles (Runge, 2001). A global bargaining forum would allow such deals to be negotiated, and ensure that incentives are altered in ways that include commitments to higher environmental quality. Such a forum would also help to stimulate a flow of new resources to developing countries, which often bear the costs of producing many global public goods. The forum would also need to comprise a set of mechanisms for verification, financial transfers, and contract enforcement.

A permanent negotiation forum, moreover, would substantially reduce the costs of diplomatic activity around global issues. Rather than holding a series of international meetings at different locations around the world, a “campus” for international environmental activity could be devised where relevant scientific information is presented and negotiations conducted (Spencer, 2001). This process of continuous interaction, mutual education, and creative trade-offs would encourage increased coherence of rules, revelation of preferences and assumptions, and innovative solutions to cross-cutting issues.

### **Networked Governance**

In proposing a loosely structured GEM, we emphasize the need for form to follow function. We envision a light institutional superstructure, which would provide coordination through a staff comparable in size and expertise to the WTO Secretariat in Geneva that manages the international trading regime. The secretariat would

help to promote cooperation and achieve synergies across the disparate multilateral environmental agreements and other international institutions with environmental roles. It would also act as a mediator and buffer between the environment and the Bretton Woods institutions with their economic focus.

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**The Global Environmental Mechanism would thus *not* add a new layer of international bureaucracy nor create a world government. Quite to the contrary, movement toward a GEM should entail consolidation of the existing panoply of international environmental institutions and a shift toward a more modern, “virtual” organizational structure.**

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At the center of our proposal for a GEM lies a global public policy network that draws in issue-specific expertise from around the world. Global networks represent an innovative organizational mechanism for responding to an ever more complex international policy environment, taking advantage of Information Age communications and technologies to build new opportunities for cooperation (see Streck, this volume). Engaging an established set of private and public organizations with environmental expertise, these networks operate as a flexible system for advancing international environmental agenda-setting, analysis, negotiation, policy formulation, implementation, and institutional learning.

Two benefits from networked governance are most notable – minimized complexity and hierarchy, and fast boot-up and delivery times (Rischard, 2001). While capitalizing on existing institutions and harnessing the power of governments and civil society alike, networks offer a faster, agile, problem-tailored process, inclusiveness on a merit basis, access to state of the art knowledge, and simultaneous proximity to both the local and the global scale.

## **CONCLUSION**

Global environmental policymaking in the last decade has focused mainly on principles and declarations rather than on mechanisms that

alter incentives and produce change. The global environmental management system is clearly falling short of the world community's needs and expectations. It is time to re-engineer the regime, aiming for a new, forward-looking, sleeker, and more efficient architecture that will better promote the environment while also serving governmental, public, and business needs.

The logic of a Global Environmental Mechanism is straightforward: a globalizing world requires better and more modern ways to manage ecological interdependence. A vibrant and focused Global Environmental Mechanism would contribute to improved collective action in response to global-scale challenges by:

- Closing the jurisdictional gap through the provision of an authoritative environmental voice in the international arena and a recognized forum where national officials and other stakeholders can work cooperatively to address global issues;
- Closing the information gap by bringing relevant data and analysis to the appropriate policy arena, elucidating problems, and framing solutions;
- Closing the implementation gap by matching interests and commitments in a global bargaining forum and providing functional, coordinated financing and technology mechanisms. With a global public network at its core, a GEM would contribute to improved legitimacy through greater participation, representation, and fairness in the policy process.

The 2002 World Summit on Sustainable Development presents an opportunity to make real progress.

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**We suggest launching a Global Information Clearinghouse and a Global Technology Clearinghouse as immediate concrete steps forward and initiating a Commission of eminent people to examine options for more fundamental structural reform.**

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More broadly, a commitment to revitalize the international environmental regime should be cast as part of a wider “global bargain.” Specifically, the launch of a GEM needs to be paired with a major new poverty alleviation initiative, perhaps driven by a rechartered World Bank and UNDP.

In conclusion, we turn to the words of former New Zealand Prime Minister Geoffrey Palmer, who, before the 1992 Rio Earth Summit, observed:

[T]he methods and techniques now available to fashion new instruments of international law to cope with global environmental problems cannot meet the challenge. The emerging issues are so big and so all-embracing that current ways of doing things will not solve these problems. The institutional mechanisms within the United Nations system are not capable of handling the issues. The time has come for ‘something more innovative, for a conceptual leap forward in institutional terms.’ (Palmer, 1992)

These words continue to ring true today and underscore the urgency of the task before us.

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