
Why APEC Must Act

Environmental problems matter. They detract from the gains from growth; they reduce the allocative efficiency of the economic system; and they threaten the prospects of continuing trade and investment liberalization and economic integration. What, if anything, can APEC do? And why should APEC act rather than national governments or existing international organizations?

First, as a regional grouping of Pacific Rim nations, APEC represents the optimal institutional response to regional-scale pollution and resource management problems—no other forum covers all of the relevant actors in this geographic space. Second, the environmental performance of national governments and international organizations frequently falls so short of the mark that APEC has an important role to play in strengthening the results at other levels in the multitiered environmental governance structure. APEC's economic and political clout, its diverse membership, and its flexible modes of decision making, in particular, create important opportunities for intervention by APEC to compensate for deficiencies at the local/national and global scales.

Thus, both economic theory and policymaking practice provide the logic for an APEC environmental management program. But even if they did not, market-driven economic integration across the Asia Pacific, together with the decision to promote that integration through the APEC forum, creates an imperative for environmental action. As we argue in this chapter, economic integration cannot be sustained without attention to social issues, including protection of the environment. Thus, the pattern of economic integration becomes an important factor in determining the appro-

priate level at which environmental issues should be addressed.¹ While the APEC “community” that currently exists is weak, deepening integration will, over time, fuel the process of community building and create an increasingly powerful need and basis for coordinating responses to environmental issues across APEC.

APEC’S Environmental “Value Added”

APEC members confront a wide spectrum of environmental problems at the local/national, regional, and global levels. The primary case for an APEC environment program lies in its capacity to respond to regional super externalities, including the depletion of Pacific fisheries, acid rain, pollution of shared air and watersheds, and destruction of the Pacific coastal habitat.

But serious institutional weaknesses in both national and global environmental programs create further opportunities—even requirements—for APEC.² More specifically, regional cooperation could reinforce environmental policymaking at the national level, where regulatory incapacity presents a serious obstacle to optimal environmental policymaking, particularly among APEC’s developing countries. While increased wealth may, over time, reduce these shortcomings, the capacity-building process could be accelerated by APEC-level collaboration. Countries with more sophisticated regulatory regimes could help less-developed APEC members to overcome their technical and scientific limitations.

Among APEC’s more-developed nations, cooperation on common environmental problems could save money and achieve economies of scale in environmental protection by dividing up the necessary analytic work and sharing data, science, risk assessments, cost-benefit analyses, and policy approaches. An APEC environmental program might also facilitate information exchanges between governments and nongovernmental organizations (which would help to enrich environmental policy debates) as well as between governments and the public (which would allow people to better understand environmental protection issues and options).

In addition, APEC might compensate for deep flaws in the global environmental management structure. While the structurally optimal response to problems at the worldwide scale would be the creation of a Global Environmental Organization (GEO), political obstacles make this institutional reform unlikely in the short term. Until such obstacles can be

1. In chapter 7, we develop a theory of *optimal environmental governance* that establishes guidelines for determining which jurisdictional level is best equipped to respond to a particular environmental issue.

2. In making up for deficiencies at other levels—national and global—APEC is, in the language of economists, a “second-best” institutional response.

overcome, APEC can act as an intermediate institution supporting better global environmental management. In particular, collective strategic interventions by APEC countries could “ratchet up” multilateral environmental efforts in much the same way that the organization has influenced multilateral trade efforts. APEC could also serve as a smaller-scale—18-country—testing ground for future global collaborative environmental action. Moreover, regional environmental management could provide institutional structures that can both compensate for the absence or inefficacy of regulatory structures at the global level in the short run and provide institutional experience for new structures of global management in the long run. In addition, an APEC environmental regime might bring together countries that otherwise would not collaborate, most notably helping to bridge the North-South divide that is so troublesome in the international environmental domain.

Optimal Responses to Regional Harms

As we observed in chapter 4, environmental problems (or benefits) often span more than one political jurisdiction, and optimal environmental policy responses are thus unlikely to be adopted. Such structural mismatches explain, at least in part, the failure of efforts to respond to transboundary acid rain, depletion of Pacific fishery stocks, destruction of the marine ecosystem around the Pacific Rim, US-Canada competition for salmon, toxic contamination of the Great Lakes between the United States and Canada, and pollution of the Mekong River delta. In each of these cases, the incentive to disregard the costs and benefits that accrue to those beyond one’s own constituency—the “super externality” problem—leads to inadequate regulation.

In a few instances, APEC neighbors have recognized their interdependence and have developed cooperative responses to regional environmental threats (UNESCAP 1995; Caldwell 1996; ASEAN 1992; Boer, Ramsay, and Rothwell 1997). The United States and Canada, for example, concluded an Acid Rain Treaty in 1991, albeit after a decade of bitter Canadian complaints about their acidified lakes and dying forests. The United States and Mexico have also developed a Border Environmental Plan. And while China continues to balk at suggestions that it is financially responsible for Japan and Korea’s acid rain problems, Japan’s payment for scrubbers on Chinese power plants has slowed the growth of acidic deposits in East Asia (Evans 1994).³

3. Japan has recently signed a bilateral agreement with China in which it undertakes to provide around \$30 million in funding to abate environmental harms, including the SO₂ emissions that contribute to Japan’s acid rain (*Asia Pulse*, 7 July 1997; BBC Summary of World Broadcasts, 2 July 1997).

Efforts to protect the coastal and marine environment in the region have also advanced slowly. The ASEAN countries adopted an action plan under the Regional Seas Program of the UN Environment Program (UNEP) in the early 1980s to promote marine protection in Southeast Asia. Australia, New Zealand, Papua New Guinea, and the South Pacific Islands have developed an action plan designed to protect coral reefs and fisheries off their coasts. In addition, APEC itself has made sustainability of the marine environment one of its priorities, although (as we discuss in chapter 8) little has been done to advance this concern.

Shared waterways and water resources have also been focal points for regional cooperation. For example, Thailand, Vietnam, and their neighbors have concluded an agreement on Cooperation for the Sustainable Development of the Mekong Basin. The bilateral International Joint Commission of the United States and Canada oversees transboundary environmental issues with special emphasis on the management of the international waterways of the Great Lakes.

The most comprehensive efforts to address regional environmental harms among APEC countries are those of NAFTA's members. The North American Commission for Environmental Cooperation (CEC), established under the Environmental Side Agreement to NAFTA, offers particular promise.⁴ Notably, the NAFTA regime incorporates a number of important environmental innovations: a structured system of outreach to NGOs, an environment-oriented dispute settlement mechanism, and procedures to regularize meetings among environment ministers (P. Johnson and Beau-lieu 1996).

Despite these modest successes in various corners of APEC, little concrete progress has been made in a number of important areas. For example, even though Japan is transferring pollution control technologies to Chinese power plants, acid rain continues to pour down across East Asia. Acid rain is also becoming a problem in Southeast Asia. On the marine front, although cooperative efforts under UNEP's Regional Seas Program are now well established, the joint activities have been primarily limited to assessment, monitoring, and planning (Caldwell 1996). Destruction of the coastal environment shows no sign of abating, and fishing stocks in many of the Pacific fisheries continue to decline precipitously.

The opportunity to tailor environmental policies to the appropriate geographic scale would be especially valuable in addressing the regional environmental problems described above. The challenge for APEC countries is to curb free-riding and cost-externalizing behavior. In this regard, efforts to clarify who holds the property rights to contested or common regional resources might return substantial dividends. APEC might, for example, develop a scheme of market-based tradable fishing rights that,

4. For a review of the CEC's trilateral environmental efforts, see its most recent annual report (1996). See also Executive Office of the President of the United States (1997).

by limiting the total oceanic fishing catch, could help to return the Pacific fisheries to sustainability.⁵ It might also provide a mechanism to ensure that Malaysia, Singapore, Brunei, and the Philippines get compensation for the harms they have suffered from smoke caused by Indonesian forest fires, a problem especially in the summer of 1997. By developing a regime that governs regional pollution spillovers and common resource use, an APEC environmental program would help to build a base of environmental norms to guide the resolution of disputes involving transboundary harms.

We do not wish to overstate the importance of regional externalities in making our case for APEC involvement. The number of truly regional physical spillovers is limited. As a consequence, the argument for an APEC environmental regime depends, in part, on the effectiveness of regional environmental collaboration in improving both national responses to localized harms and international responses to global challenges.

The Regional Contribution to National Environmental Policymaking

An APEC environmental program offers the prospect of enhancing national environmental efforts and lowering regulatory costs in a variety of ways. Regional cooperation offers special promise for APEC's developing countries, which need to strengthen their environmental program to improve their performance. But even the APEC countries with sophisticated environmental regulatory regimes in place could benefit from regional collaboration.

Capacity Building

Many of APEC's less-developed countries have received, and continue to receive, significant support to build their institutional capacity for environmental protection. The Asian Development Bank, the UN Development Program, the UN Environment Program, the World Bank, the Global Environment Facility, other international bodies, and bilateral aid donors have all invested in capacity building. The Australian Agency for International Development, the Canadian International Development Agency, the Japan Fund for the Global Environment, and the United States-Asia Environmental Partnership are all engaged in environmental training and technology development on a bilateral basis. Many developed-country NGOs are also involved in capacity building. For example, the Japan Fund for the Global Environment reports that Japan-based NGOs are involved in over 50 environmental projects in APEC countries (personal communication with Tatsuya Eguchi, 19 March 1997). While valuable, these efforts are generally uncoordinated, unfocused, not comprehensive, and of limited scope. Hence they have failed to address the

5. See chapter 9 for a more detailed discussion of this potential initiative.

capacity-constraint problems of APEC's industrializing countries in a systematic fashion.

The existing efforts also suffer from other fundamental problems. First, in many cases, insufficient commitment by both host countries and donor agencies obstructs success (World Bank 1996c). Second, donors often dominate capacity-building efforts (Baser 1996), resulting in a lack of host country "ownership" of projects (Needham 1997). Third, pressure to show immediate results compromises the need to engage in long-term capacity building (P. Morgan and Qualman 1996). Fourth, there tends to be an overreliance on technical assistance without appropriate training of, and knowledge transfer to, local personnel.

While regional cooperation is not required to support Asia Pacific capacity building, APEC-level collaboration could deliver significant benefits (statement of Sidek Bin Saniff, Singaporean minister of the environment, 9 June 1997) and should be pursued on a voluntary basis.

The question, of course, is how APEC would succeed in capacity building where others have failed. First, as members of a nascent economic community, APEC members have an incentive to develop a shared capacity to address environmental problems. As we noted earlier, inadequate environmental programs in one or more countries within a trading relationship, especially when the countries are moving toward deep integration, can create competitiveness sensitivities and trigger welfare-reducing strategic behavior in environmental policymaking. In turn, the fear of regulatory races toward the bottom can chill enthusiasm for freer trade. Quite simply, the momentum for economic integration depends on all parties to the trade regime having functioning national environmental programs. APEC's trade and investment liberalization goals will therefore be considerably advanced by an appropriate program of environmental outreach. The consequences of not having such a program could be dramatic; without adequate environmental footings the APEC liberalization process may come to a point where it cannot proceed further without collapsing in rancor over tensions created by divergent environmental standards and values (see chapter 5).

Second, because APEC includes countries from the North and South, East and West, the potential for capacity "arbitrage"—in which experience about how to develop capable people and institutions, as well as an environment that supports better regulation, is transferred from developed to developing countries—will be great. Finally, APEC comes to the capacity-building challenge fresh. It can jettison past approaches that have failed and build on those that have worked.

Collaboration on Common Problems

Regional collaboration might also be attractive to APEC's more advanced members as a mechanism for cutting their environmental regulatory costs,

especially because so many of the problems they face are common to most or all APEC countries (Esty 1994c). Because environmental policy-making is technically complex, there exist real economies of scale in regulatory activities (Kimber 1995). By avoiding needless duplication of technical tasks in every country, an APEC environmental program would allow regulators in APEC countries to spend scarce government resources more effectively. One such task is determining the safe level of pesticide residues in food, on which the United States spends more than \$100 million per year (Esty 1994a); there are many other areas where a division of regulatory labor would be useful.⁶

While countries can—and usually do—undertake their own technical analysis and scientific work in relation to these issues, regional collaboration on common issues offers the prospect of both better and more cost-effective policymaking. At a time when budgets for environmental protection are limited, even shrinking, as governments try to rein in national deficits, countries should welcome the opportunity to streamline their regulatory programs through joint efforts.

Improving Information about Environmental Harms

Collaboration on common problems on the part of APEC countries would offer further benefits if it were accompanied by a standardized regionwide data collection and tracking program (UNESCAP 1995; Hammer and Shetty 1995). Improved communication is particularly important in the APEC context, where cultural and social diversity have traditionally limited information exchange and dialogue—especially between the Asian and Western members of APEC (Ryan 1997), and sometimes even among the Asian countries themselves (Funabashi 1995).⁷

Quite apart from the benefits of improving the data available to regulators, it is crucial that citizens across APEC be provided with information about the nature and extent of ecological and public health problems. As we saw in chapter 4, one of the major sources of suboptimal environmental policy in APEC countries is the failure of governments to reflect accurately the preferences of the citizenry. These public choice problems are partly caused by the absence of readily accessible environmental information, particularly among APEC's developing members. Environmental literacy varies widely across APEC. In Singapore, for example, depletion of

6. Collaboration on risk assessments need not result in each country adopting the same regulatory response or identical environmental standards. Richer countries can choose to put in place tougher standards than poorer nations. Not only would each APEC country be free to make its own political determination about how best to respond to harms analyzed jointly, but the policy design, implementation, and enforcement would remain the exclusive province of individual jurisdictions.

7. Information relevant to environmental problems should be regarded as a “public good” and thus made available to any country seeking environmental solutions.

the ozone layer topped the list of public concerns in a recent poll, while in China nearly half of the government officials and business people recently surveyed did not even know what the ozone layer was (UNES-CAP 1995, 574).

Many of these problems could be addressed if APEC were to develop a program to monitor local/national, regional, and global environmental “indicators.”⁸ Such a program would provide visible benchmarks for gauging progress in pollution prevention and control, as well as in resource management. The ready availability of comparable cross-country data would highlight weak environmental performance and might shame governments into implementing policies that are more ecologically friendly and reflect public preferences. This initiative would also provide citizens across the Asia Pacific region with the kind of information they need to reach a deeper understanding of environmental issues and to judge the relative performance of their own governments.⁹

Global Gains from Regional Management

The global environmental regime is deeply flawed (Hurrell and Kingsbury 1992; Haas, Keohane, and Levy 1993; Victor, Raustiala, and Skolnikoff 1997).¹⁰ The UN Environment Program (UNEP), lacking political and financial support and hobbled by its location in Nairobi, verges on collapse. Global environmental management thus falls to a tangled web of UN bodies,¹¹ ad hoc commissions, individual treaty secretariats, and multilateral funding agencies.

This haphazard structure produces poor results. First, despite the considerable number of international institutions, many serious problems get little or no attention—and certainly nowhere near the level of policy focus needed to fully internalize environmental costs and benefits. Second,

8. Environmental indicators are quantitative or qualitative measures of environmental performance that can be tracked over time (Hammond et al. 1995).

9. Of course, a well-informed public is only the first step toward better environmental policies. Minimizing public choice distortions ultimately requires functioning democracies, representative governments, and far-reaching political reforms to combat special interest manipulation of the political process—changes that fall outside the ambit of a narrowly tailored agenda of regional environmental management.

10. In a recent report, UNEP itself concluded that “global governance structures and global environmental solidarity remain too weak to make progress a world-wide reality. . . . The gap between what has been done thus far and what is realistically needed is widening” (UNEP 1997).

11. In addition to UNEP, the UN Development Program (UNDP), the Commission on Sustainable Development (CSD), the UN Food and Agriculture Organization (FAO), the World Health Organization (WHO), and the International Atomic Energy Agency (IAEA), among others, all claim parts of the international environmental mandate.

because the roles and responsibilities of the existing international institutions are not clearly defined, there is widespread duplication of efforts. The issue of “trade and the environment,” for example, highlights the problem of overlapping mandates. UNEP, the Commission on Sustainable Development (CSD), the Organization for Economic Cooperation and Development (OECD), the UN Conference on Trade and Development (UNCTAD), and the World Trade Organization’s (WTO) Committee on Trade and the Environment (CTE) all have “trade and environment” programs. Coordination across these bodies has been minimal and tensions among them have been high, thereby limiting policy progress. On the issue of climate change, the same story emerges: work is being done by the OECD, UNEP, the World Bank, the Intergovernmental Panel on Climate Change (IPCC), and the Climate Change Treaty Secretariat. With so many competing and clashing groups and interests, the whole that emerges is much less than the sum of its parts.

Another structural flaw arises from the ambiguous mandates given to various international environmental bodies. Because of the diversity of views across the international scene, the lack of seriousness of many countries with regard to transboundary harms, and the capability of laggards (the least-committed nations) to determine the level of action (Suskind 1994),¹² progress is slow on many issues and nonexistent on even more.

Third, there is a lack of coordination among the existing international bodies, exacerbated by their geographic spread around the globe. UNEP is located in Nairobi, the World Bank in Washington, the UN Development Program (UNDP) in New York, UNCTAD in Geneva, the Climate Change Treaty Secretariat in Bonn, and the Vienna Convention on Ozone-Depleting Substances Secretariat in Montreal. Coordination is made more difficult by the fact that these bodies are fiercely protective of their regulatory turf and have often been unable to work efficiently and effectively toward common goals (Keohane 1996). Disputes among the World Bank, UNDP, UNEP, and other stakeholders, for example, have hampered the operation of the Global Environment Facility (GEF) and nearly led to its collapse at the time of the Rio Earth Summit (Fairman and Ross 1996). More broadly, the various components of the international environmental regime fail to compare harms, set common priorities, coordinate efforts, rationalize budgets, and consequently achieve the greatest result at the lowest cost.

Finally, the ad hoc, case-by-case approach to global environmental problem solving squanders the limited political capital available to address transboundary pollution and resource issues. Each new multilateral effort con-

12. Multilateral action generally requires “consensus,” which often gets translated into a demand for unanimous support. Thus, agreements tend to be watered down and their language left vague.

sumes enormous amounts of time and energy in initial negotiation—to get agreement on the scope and nature of the problem, determine what action is required, identify who will act, and settle on who will pay. Thus, precious little political capital remains to implement, enforce, and evaluate outcomes.

The logical response to the inefficiency and ineffectiveness of current international environmental management efforts would be the creation of an umbrella Global Environmental Organization (Esty 1994a; 1994c; 1997c). But creation of a GEO does not seem politically feasible, at least in the short to medium term.¹³ Without a major trauma to highlight the world's ecological interdependence and the need for a new institutional regime to govern global environmental issues,¹⁴ fears about the loss of sovereignty to a global environmental agency and doubts about the wisdom of creating a new international body—at a time when so many international organizations are performing poorly—override the logic of a comprehensive and coherent international environmental management structure.

Given the dim prospects for reform at the global level, APEC offers a compensating mechanism to improve international environmental policy outcomes. In some respects, an APEC environmental program could substitute for the missing global regime. The invaluable experience it could provide in collaborating on a supranational level would also reassure skeptics and thus facilitate development of a GEO down the road.

“Ratcheting Up” Multilateral Efforts

By acting in a coordinated fashion, the APEC countries may be able to change the dynamics of multilateral environmental negotiations. Both theory and practice demonstrate that changing coalitions or introducing new ones can alter negotiated outcomes (Dixit and Nalebuff 1991). Because APEC represents a broad coalition of countries—diverse from the standpoints of both culture and of economic development—the likelihood of hitting on new approaches or unanticipated ways to make progress is heightened.¹⁵ Moreover, any common position would carry great weight in international policy debates. In short, APEC's involvement in the international arena can “change the game” (Brandenburg and Nalebuff 1996).

13. Although Germany, Brazil, Singapore, and South Africa proposed the creation of an overarching international environmental body (*Wall Street Journal*, European ed., 20 June 1997) at the June 1997 “Rio + 5” meetings at the United Nations, a GEO still seems some years off.

14. The world community came to grips with its economic interdependence only after the Great Depression and World War II dramatically illustrated the world's economic connectedness and the need for cooperation on a global scale—catalyzing the creation of the Bretton Woods economic institutions.

15. Of course, this same diversity makes agreement on a unified APEC position potentially difficult to achieve.

APEC's ability to shape international economic negotiations has already been demonstrated. The implicit threat that emanated from the 1994 APEC Summit in Seattle, of advancing trade liberalization within APEC independent of progress on the multilateral front, provided the impetus to bring the Uruguay Round of global trade negotiations to a close. By sending a message to recalcitrant European countries that freer trade within APEC represented a feasible alternative to more open global markets, the APEC leaders helped to ensure that the GATT talks would not fail (Bergsten 1994). Indeed, after the completion of the Uruguay Round, German GATT negotiator Lorenz Schomerus acknowledged: "The chief determinant of the successful conclusion of the Uruguay Round was the APEC summit in Seattle; they sent us a clear message" (quoted in Funabashi 1995, 107). Similarly, the groundwork laid at the Subic Bay APEC Economic Leaders' Summit in November of 1996 helped pave the way for an agreement to remove barriers to trade in information technology products at the WTO Ministerial Conference in Singapore the next month.¹⁶

There exist similar opportunities for APEC to intervene strategically in multilateral environmental efforts. In fact, some of the biggest opportunities to protect the environment are grounded in a reduction in trade barriers and protection. For example, if APEC made a commitment to reduce agricultural protectionism—eliminating export subsidies, domestic price supports, import restrictions, and unjustified sanitary and phytosanitary standards—the upcoming WTO negotiations on agriculture might be affected dramatically. Just as the intervention of the 14-member Cairns Group during the Uruguay Round arguably contributed to the significant reforms in agricultural protection (Schott 1994), APEC could spur a new round of agricultural trade liberalization.

The reduction of energy subsidies presents another opportunity both to improve allocative efficiency and to ameliorate the harmful pollution effects of excessive subsidy-induced consumption of fossil fuels (World Bank 1997). APEC action could jump-start multilateral efforts to reduce these subsidies. As with agricultural trade liberalization, such reduction would yield both economic and environmental benefits (K. Anderson 1992; Charnovitz 1996a).

16. The opportunities for APEC to "ratchet up" the process of trade and investment liberalization have not yet been exhausted. APEC countries have also expressed a desire to reach agreement on issues that have not yet been satisfactorily resolved at the multilateral level, such as antidumping policy, or that have not even been discussed, including competition and antitrust policy. If such agreements can be reached among APEC countries, they could be presented to WTO members for global adoption (APEC 1994b; Bergsten 1994). In the trade arena, at least, commentators have concluded that APEC fills the gap in "intra-state architecture between the global system represented by the General Agreement on Trade and Tariffs (GATT) and the network of bilateral relationships" (Clarke 1995). And Renato Ruggiero, WTO director, recently noted that APEC could increase the WTO's effectiveness through economic negotiations at the regional level (WTO, press release, 12 May 1997).

APEC might also ratchet up multilateral efforts to combat climate change. If APEC, representing a diverse group of developed and developing countries and a number of the pivotal states on this issue, could achieve consensus on an appropriate path toward reducing greenhouse gas emissions, an important foundation for advancing the issue on the worldwide level would have been laid.¹⁷

APEC as a Laboratory for Experimentation

An APEC environmental forum could also act as a testing ground for future multilateral environmental policy mechanisms. While the benefits of smaller-scale experimentation have been given great weight in the context of federal systems—for example, in the United States, Australia, and Canada—comparatively little attention has been paid to the potential for regional institutional structures to serve as laboratories for various international environmental strategies.¹⁸

APEC might also become the comprehensive testing ground for “joint implementation” (JI) projects,¹⁹ bringing developed and developing countries together in common efforts to mitigate climate change. APEC would be a particularly useful venue to test JI since its members include many countries that favor the use of JI, including the United States, Canada, and Australia, together with those countries that are more hesitant, including China, Malaysia, and Indonesia.²⁰ Success with JI projects at a regional level would boost confidence in this mechanism as a cost-effective approach to addressing climate change at the global scale.

APEC could also work to reduce pressures for a “race toward the bottom” in environmental standards and address fears that developing-country access to developed-country markets will be limited by the latter’s

17. APEC need not act as a formal environmental negotiating bloc or caucus, but rather as a forum available to test and refine possible approaches. And, of course, APEC need not intervene where multilateral efforts have been fruitful, as in the case of the Montreal Protocol. APEC’s value will emerge when multilateral efforts have stalled or are inadequate.

18. The value of regional experimentation in the economic realm is well understood. Both the US-Canada and Australia-New Zealand free trade agreements, for example, helped to define the baseline for liberalized trade in services provisions that were incorporated into the Uruguay Round GATT negotiations (Schott 1994). Similarly, the NAFTA investment chapter was used as a precedent for the development of APEC’s nonbinding investment code; it is also serving as a model for the OECD’s Multilateral Agreement on Investment.

19. Joint implementation entails developed countries paying for emissions reductions in developing countries—where per unit emissions reductions are likely to come most cheaply—and receiving credit toward their own emissions reduction obligations.

20. JI is contentious because of the equity and sovereignty concerns it raises. From an equity perspective, JI is said to be unfair because it allows developed countries to buy their way out of taking domestic measures to mitigate climate change. The sovereignty issue arises from a fear that JI will allow developed countries to influence development patterns in less-developed nations.

strict regulations. Since these issues could become flash points at the multilateral level as well as within APEC (Runnalls 1997), APEC could test various approaches to defusing these tensions such as “harmonized” product and process standards or environmental dispute settlement procedures.

Experience for Future Global Governance

Regional environmental management can, in the short run, compensate for deficiencies in global environment management structures; in the long run, it can provide institutional experience to help ensure that future global institutions are properly structured and efficiently operated. In this regard, APEC can serve an instrumental purpose, as an intermediate institution on the path to an optimal multitiered environmental governance structure.

Some of the areas in which APEC’s involvement might yield benefits include the creation of dispute settlement procedures sensitive to environmental concerns, the development of legal norms and mechanisms to govern transboundary harms, and the identification of ways to accommodate the participation of nongovernmental actors in supranational environmental management.

“Engagement” Benefits

Another virtue of APEC is that it brings together countries that are on opposite sides of the North-South environmental divide. The gulf between the developing South and the developed North has often looked unbridgeable. Progress on international environmental issues has been particularly slow in the wake of the 1992 Rio Earth Summit, at which North-South tensions produced an unfocused and unactionable document—Agenda 21—and little in the way of a concrete action plan for sustainable development (Esty 1993a). Because developing nations face pressing local and national public health and ecological problems—including threats to food security, inadequate drinking water supplies, lack of sanitation systems, and polluted airsheds—while industrialized countries give greater priority to longer-term and more diffuse harms—such as ozone layer depletion and climate change—regional environmental management in APEC provides a mechanism to accommodate the different priorities of its members and to address localized environmental harms and transboundary issues simultaneously. In fact, the progress made in the trade realm in the face of serious obstacles augers well for APEC’s fashioning a common position on critical environmental issues.

In addition to the general opportunity to close the North-South environmental gap, APEC specifically offers an opportunity to engage China in constructive diplomacy (Funabashi 1995). Indeed, the environment provides an especially promising issue on which to practice cooperation.

APEC furthermore counts among its members a number of the pivotal environmental states—the United States, China, Indonesia, Mexico, and Japan—whose performance will profoundly shape the world’s ecological future and whose leadership will be critical to efforts to manage the regional and global environment (Esty 1998). APEC also includes Malaysia, Thailand, and Singapore, countries whose concerns about the neocolonial “environmental imperialism” of the North have been a source of particular tension in recent international environmental dialogues.

On a broader level, a unique form of international dialogue is evolving within APEC—what Funabashi (1995) calls the “APEC way.” It resembles neither the traditional Western policy process, characterized by formalism and legalism, nor the traditional Eastern way, characterized by flexibility, consensus, and personal relationships. Instead, the APEC way is an amalgam of the two modes of interaction, which may be especially valuable in providing a way forward on seemingly intractable international environmental issues.

Environmental Underpinnings for APEC Economic Integration

Apart from APEC’s specific ability to optimally respond to regional-scale harms and to act as a “second-best” institutional response, thus compensating for deficiencies at the local and global scales, over time stronger coordination on environmental issues will be needed over time to provide support for deepening economic integration. Specifically, the success of efforts to keep APEC markets open (let alone open them further) cannot be guaranteed without attention to the environmental content of intra-APEC trade.

Environmental issues are important in the trade arena, not just because of their economic impacts but because trade goals are not—and cannot be—pursued in isolation from other policy aims, including environmental aspirations. The public insists that transactions and trade occur within boundaries defined by shared values (Rodrik 1997). Interest in social arrangements—including environmental rules that undergird the market—exists in all APEC countries, although wealthier publics clearly can better afford to voice their moral concerns.

Americans, in particular, have never defined themselves as purely economic beings. They find the prospect of cheaper goods through trade attractive, but not at the expense of moral principle. Thus, more than many nations, the United States has shown a willingness to forgo the benefits of international trade when the public believes that a moral issue is at stake.²¹ The ongoing debates over whether to grant China most favored

21. In addition to concerns about environmental values, pressures for commitments to basic human rights and baseline labor standards are also likely to grow as the pace of economic integration quickens.

nation (MFN) status in the wake of human rights abuses represents one manifestation of this sentiment.

Americans are often willing to press their ethical stand even when it is unclear that doing so will improve the situation (Srinivasan 1995). While some observers suggest that this behavior is actually motivated by protectionist inclinations (Bhagwati 1993a), others recognize that the willingness to forgo trade derives, at least partially, from sincere moral beliefs. As Rodrik (1997, 33) observes in commenting on the “new” agenda for trade policy in general and the push for environmental conditions in particular: “it would be a mistake not to recognize that [these demands] reflect genuine discomfort in the importing countries with the moral or social implications of trade.”²² There is little doubt, for example, that the outrage across the United States about the dolphin deaths caused by Mexican tuna-fishing practices was *not* motivated by a desire to help competing US fishermen.²³ It reflected a genuine desire to see dolphins protected.

As trade expert Gary Hufbauer (1989, 73) notes, “Trade policy has never been pursued with single-minded attention to economic gain.” And even the GATT recognizes that some foundations for trade would be unacceptable. Notably, GATT Article XX(e) permits countries to ban or restrict imports that are the product of prison or slave labor.

Every nation restricts the operation of certain markets and blocks some economic transactions as unacceptable (Walzer 1983; Rodrik 1997, 35). Some societies limit very little. Others proscribe much more. In determining the boundaries of “blocked exchanges,” communities establish the baseline obligations of membership and, in so doing, define themselves. Free trade cannot be sustained in a context of serious disagreement over what is in bounds and what is out.

Jurisdictions that believe that the actions of their trade partners have dipped below community-determined minimum standards might not be able to maintain their commitments to freer trade. The dynamic that demands political integration (and the creation of ethical standards for trade) alongside economic integration can be seen at work in every deeply integrated free trade area. When the states of the American union consoli-

22. Alan Krueger’s (1996) analysis of recent US child labor legislation, which seeks to ban the importation of goods made with child labor, supports Rodrik’s claim. Indeed, Krueger found that the sponsors of the 1996 Child Labor Deterrence Act in the US Congress came disproportionately from districts with high-skill labor, not the low-skill labor most likely to benefit from legislation constructed with protectionist intent.

23. Obviously, in some cases, the motives for pushing an environmental agenda will be mixed. The US Corporate Average Fuel Economy (CAFE) requirements, for example, which set mileage standards for cars on the basis of each manufacturer’s fleetwide average fuel efficiency, was adopted because it was perceived to be the policy approach to improving vehicle mileage that was least likely to hurt US car companies.

dated into a national market early in this century, powerful pressures to create minimum federal standards emerged. As President Franklin D. Roosevelt declared, in arguing for national labor standards in the United States: “Goods produced under conditions which do not meet a rudimentary standard of decency should be regarded as contraband and ought not to be allowed to pollute the channels of interstate trade” (quoted in Esty 1994a, 166). The European Union today faces similar pressures—and is responding with a comparable set of EU-wide “directives” that establish baseline standards for all members.²⁴

APEC may not yet be at the point where the level of economic integration it has achieved demands greater noneconomic (including environmental) integration. But that point will come, and the fundamental disconnect between the APEC vision of ever-deepening economic integration and the reality of limited parallel noneconomic coordination will soon loom large.²⁵ If the APEC nations are serious about their economic goals, they must become more serious about their environmental commitments—and the need for building community around a set of common values.

Objections to APEC Environmental Management

Although the logic of managing some environmental programs at the APEC level appears strong, skeptics may still voice doubts. Wouldn't an APEC environmental regime entail a loss of national sovereignty? They might also ask why a management structure is needed at all, when issues could be dealt with on an ad hoc basis. And given that a number of functions we envisage for APEC could be performed by a reformed or reconstituted global management structure, why not direct attention to that end? Moreover, if regional environmental cooperation is desired, why is APEC the appropriate level of aggregation? Why not pursue environmental goals through subregions such as ASEAN, Australia-New Zealand Closer Economic Relations (ANZCER), and NAFTA? And there will undoubtedly be objections that an APEC environmental program will move political decision making further away from the citizenry, as well as worries about creating a large APEC bureaucracy to administer an APEC environment program.

24. As Sapir (1996) stresses, the harmonization of policies represents a core dimension of the compact on which the European Union rests.

25. We are not suggesting that APEC economic integration needs to be accompanied (at this time) by the development of political institutions a la European Union, but simply that parallel attention needs to be paid to noneconomic issues.

Loss of National Sovereignty

Regional environmental management need not entail a loss of national sovereignty.²⁶ The structures we propose as responses to transboundary harms might appear to violate the principle of territorial sovereignty, but, in fact, it is the harms themselves that spill across borders and compromise territorial sovereignty, not the creation of mechanisms to respond to them. Ecological interdependence is a fact of life on this planet. Pronouncements in defense of national sovereignty do not stop pollutants at the border.

A further dimension of the sovereignty concern arises from the prospect that an APEC environmental program might impinge on the freedom of domestic regulators, including environmental officials, to set the standards and promulgate the policies they deem appropriate.²⁷ To some extent this fear is well-founded. But the payback for coordinating policies at the regional level—economic welfare gains on the order of tens of billions of dollars—is considerable. In short, if countries expect to get the full spectrum of benefits from economic integration, they have to be prepared to pay a modest price in supranational collaboration.

The Sufficiency of Ad Hoc Management

The most pointed criticisms of an expanded APEC environmental program derive from the suggestion that it is not needed. Why not handle regional resource and pollution issues on an ad hoc basis as they arise, involving only those whose interests are at stake? The answer is simple: ad hoc solutions are inefficient and do not work.

Notwithstanding Coase's theorem (1960), which suggests that a small number of parties can negotiate the internalization of externalities in a manner that will lead to economically efficient outcomes, environmental experience teaches otherwise. Korea has gotten no satisfaction from China in response to its entreaties for reduced SO₂ emissions. Pacific fisheries continue to fall precipitously despite regional seas agreements. The United States and Canada have been unable to reach agreement on quotas for Pacific salmon fishing.²⁸ South Korea and Japan remain at loggerheads

26. A number of aspects of the concerns about losing sovereignty are considered in chapter 5, which examines the many tensions at the economy-environment interface.

27. Efforts to set baseline, harmonized, or tiered environmental standards, for example, place limits on domestic policy-setting freedoms. Similarly, pressure to eliminate subsidies might be viewed as an incursion into domestic power to determine redistributive policies.

28. Tensions are running so high that Canadian fisherman blockaded an American passenger ferry in the Canadian port of Prince Rupert for three days in July 1997. The Canadians are upset that American fishermen, looking to catch Alaskan pink salmon, also "accidentally" caught 320,000 Canadian sockeye salmon, thrice the usual incidental catch. For their part, American fishermen believe that they have exercised incredible restraint at a time when treaty negotiations have stalled (*Los Angeles Times*, 30 July 1997; *New York Times*, 24

over fishing treaty negotiations (*Korea Times*, 24 July 1997; *Korea Herald*, 5 August 1997). And disputes among China, Taiwan, and Vietnam have prevented the successful conclusion of such an agreement for the South China Sea. The difficulty in reaching accords, even among small numbers of parties, highlights the need to clarify property rights and establish environmental norms to deal with transboundary regional harms.

Even when Coasean solutions can be found, as exemplified by Japan's side payments to China to subsidize scrubbers on Chinese coal-burning power plants, the outcome may be morally, if not economically, suboptimal. The Japanese payments to China, for example, violate the "polluter pays" principle to which APEC countries have committed themselves. Broader resort to "victim pays" solutions might well be seen as unfair by those asked to fund responses to harms that they did not cause.

Furthermore, Coasean bargaining works only when transactions costs are low. But uncertainties about the relevant property rights, disputes over the extent of externalities, and strategic behavior to avoid liability mean that transactions costs are rarely low. Finding solutions will often be complicated, moreover, by the very nature of government-to-government negotiations, which are frequently undertaken on behalf of hundreds or thousands of enterprises whose interests must be reconciled and whose ultimate compliance with any agreement often cannot be taken for granted. Causal complexities and scientific uncertainties further raise transactions costs, meaning that such costs will never be low in the environmental realm; they are especially likely to be high in the context of transboundary harms. Indeed, the reason why regulation is needed in the environmental domain in the first place—to correct market failures—explains why ad hoc intervention does not work well.

Skeptics might conclude that weak performance is a lesser evil than having a heavy-handed APEC environmental protection agency. But the alternative to inadequate national policies need not be an intrusive regional-scale environmental bureaucracy. A carefully tailored program of regional environmental "governance" aimed at ensuring a more systematic response to transboundary harms and more efficient national policy activities offers great promise.

Regional versus Global Management

Arguably, some of the tasks we propose for APEC—capacity building and attention to regional harms—might also be taken up by global institutions. There is little reason, however, to be optimistic about the likelihood that the existing ad hoc international management structure will adequately address these tasks. A newly constituted Global Environmental

July 1997). Of course, the problem here arises in part because many entities and individuals are involved, not just two governments.

Organization would be well placed to strengthen capacity in developing countries and would be of a scale large enough to ensure that all of the costs and benefits of regional resource use and pollution activities were appropriately incorporated into the policymaking calculus. But, as we noted above, the creation of a GEO faces significant hurdles, which is precisely why APEC can make a contribution to global environmental initiatives—ratcheting up multilateral efforts, acting as a venue for testing ideas, and developing structures to compensate for the inefficacy of global management.

There are a number of reasons, independent of the political infeasibility of global structures, why taking regional action on some environmental issues makes more sense than leaving them to the global arena. A forum such as APEC is more or less representative of the global community but smaller and therefore easier to manage; it can thus more easily pilot important policy and institutional initiatives.

APEC also provides—from a game theory perspective—a better setting for negotiations on global issues than a plenary world forum. Having only 18 parties at the table is far more conducive to constructive discussions than the nearly 200 countries that sometimes participate in multilateral talks. It is well understood that the more players there are in a game framework, the more confusing the menu of available actions, the more unpredictable the payoffs, and the smaller the zone of agreement (Dixit and Nalebuff 1991).²⁹

Finally, given that the objective of APEC members is to form an Asia Pacific “community”—albeit with a small “c”—the incentive to make progress on important environmental issues both to improve regional welfare and to undergird continuing economic integration is greater than at the global level. APEC’s members share both an ecological interconnectiveness and an economic interdependence, which together are more likely to catalyze progress on environmental issues than are the weaker bonds that exist at the global level.

Appropriate Level of Regional Aggregation

Situating responsibility for all environmental issues in existing regional structures—ANZCER, ASEAN, NAFTA, or other less formal subregional groups—promises suboptimal results. There are several reasons why situating some responsibility for environmental management at the APEC level makes sense. First, to the extent that certain problems, such as the

29. We are not making the claim that multilateral negotiations require the agreement of all participants, since success frequently hinges on the agreement of a limited number of key countries and coalitions. However, just as this applies at the global level, it also applies within APEC; arguably, the agreement of only five or six key nations is required to precipitate broader agreement within the whole of APEC.

depletion of regional fishing stocks, are truly transpacific in scope, APEC represents the best structural match. Other regional environmental problems, including acid rain and problems relating to shared coastal zones, that involve a subset of APEC countries might be dealt with on a subregional level. However, with the possible exception of the North American CEC in dealing with US-Mexico border issues, most subregional harms have been poorly addressed by existing subregional organizations,³⁰ a failure that creates an argument for APEC involvement.

Important benefits would be derived, moreover, by having one forum deal with the full range of regional and subregional transboundary issues. In particular, it makes sense to apply common norms and principles when seeking solutions to transboundary issues, rather than to have each issue resolved using different guidelines. A common approach holds out the prospect of an evolving framework of norms and principles that can not only be applied to future regional issues, but can serve as the foundation for the development of customary international law with respect to transboundary spillovers.

Second, the derivative environmental management functions we have proposed for APEC in this chapter—reinforcing efforts at the national and global levels—are better handled at the broader APEC scale than by subregions. It would not be optimal, for example, to leave capacity building to ASEAN, because none of ASEAN's members have environmental programs that are sufficiently advanced to offer the significant capacity improvements that Australia, Canada, Japan, or the United States can. Similarly, if efforts are to be made to ratchet up environmental efforts at the multilateral level, APEC, with its economic size and political muscle, is best positioned to do so. The nations of ASEAN, or even NAFTA, could hardly be expected, for example, to advance subsidy reform on their own.

Third, APEC—by virtue of its diverse membership—represents a microcosm of the global community in a way that other regional groupings do not. As a consequence, any results it achieves are more likely to be transferable to the multilateral level. Indeed, with its blend of Confucian, Islamic, Japanese, Western, and Latin American cultures, APEC covers at least five of Samuel Huntington's (1994) "civilizations." And as we have noted, APEC's membership cuts across the North-South fault line, with member countries that span the economic development spectrum, from per capita incomes of less than \$1,000 to over \$30,000.

Fourth, APEC is more flexible than other regional groupings. APEC initiatives can be pursued either with the agreement of all 18 members or by some subset of members³¹ appropriate to the issue or willing to proceed at a particular point in time.

30. As we discussed above, ad hoc attention among the affected parties to problems of regional acid rain and of managing the South China Sea has not been successful.

31. Cases in which just a few members decide not to endorse an APEC agreement have become known as taking the "18-x" approach, with the "18" signifying full membership. The Information Technology Agreement concluded in Manila in 1996 is an example of such

Finally, APEC can provide a neutral forum, with a broad range of outside arbiters, when two or more countries find themselves in an intractable dispute. US-Canada salmon-fishing tensions, for example, have not been successfully dealt with bilaterally or within the NAFTA context. APEC might offer a venue more conducive to working through the issues, making available other countries to mediate the dispute.³²

Moving Decision Making away from Citizenry

APEC-scale environmental management undeniably moves decision making farther away from the citizenry. Centralized policymaking, because it increases distance, always entails some loss in direct political participation.

The establishment of regional (and ultimately global) governance structures can be seen as the price that must be paid for trade and investment liberalization. Economic integration requires some environmental decision making at the scale at which trade takes place. But it is possible to minimize the public distance from political decisions through procedures to encourage NGO participation in the policy development process. Specifically, NGOs can play a very useful role in ensuring that grassroots opinions are effectively communicated to distant decision makers, such as APEC leaders. They can also transmit and explain the results of decisions made at centralized levels back to the widely dispersed citizens. NGOs can, in effect, act as the connective tissue between citizens and new forms and levels of governance.

Growing Bureaucracy

For many, the greatest fear is that of a large APEC environmental agency. But from the start, APEC's members have steered away from the EU-style bureaucracy that has developed to support the single market and the European Union's regional administrative, political, and judicial infrastructure. In its 1994 report to ministers, the APEC Eminent Persons Group

an agreement. Alternatively, sometimes just a few countries will decide to pursue a given proposal. The APEC "business visa" arrangement, for example, involves only Australia, the Philippines, and South Korea.

32. Just as negotiating among APEC's 18 members offers advantages over a 200-party negotiation, resolving disputes involving, say, two parties within the APEC forum offers benefits. As we noted above, small numbers of parties frequently fail to reach Coasean solutions. In these cases, dispute resolution *within* APEC offers substantial promise—pressure from peers in the forum, together with the consistent application of mutually agreed-on norms for transboundary environmental disputes, increases the likelihood that parties who could not agree on their own, or in a subregional framework, may be able to do so within APEC.

was at pains to point out that they were “not proposing creation of another . . . EU” (APEC 1994b, 53).

Environmental governance within APEC does not necessitate a big bureaucracy. NAFTA’s Commission for Environmental Cooperation, with its staff of two dozen, provides a valuable model of how a lean organization can manage a quite far-reaching program of regional cooperation. Similarly, the OECD’s Environment Directorate, with a comparatively small staff of 60, has helped to develop environmental norms and guidelines such as the polluter pays principle (OECD 1975) and to harmonize standards in realms such as chemicals regulation. It has also supported policy and technology exchange.

Conclusion

APEC has an indispensable role to play in abating direct harms to the environment, ensuring the integrity of the international economic system, and reducing tensions at the economy-environment interface that threaten the organization’s commitment to trade and investment liberalization. By virtue of its geographic scope there will be some regional issues for which APEC represents the theoretically optimal government response level. In other cases, deficiencies at the national and global levels make APEC action the best practical alternative—better, in particular, than continued substandard efforts or inaction.

- APEC, more than any other institution, is *optimally* situated to facilitate the internalization of externalities and the management of resources at the regional level.
- APEC can make unique contributions to issues that theoretically should be dealt with at the national and global levels but that, because of practical and political constraints, have received insufficient and unsatisfactory attention. In this regard, APEC represents a valuable *second-best* response.
 - APEC can improve environmental policymaking at the *national level* by (1) helping its less-developed members overcome regulatory capacity constraints, (2) encouraging its members to collaborate on common environmental problems, and (3) sharing important environmental information among governments, NGOs, and the public.
 - APEC can address shortcomings at the *global level* by (1) improving on poor multilateral results through strategic interventions that employ its economic and political muscle, (2) acting as a testing ground for future global initiatives, and (3) taking the initiative to establish structures of its own to compensate for absent or deficient structures at the worldwide scale.

It is essential to pursue the above environmental management functions now and to strengthen environmental coordination over time. In helping to ensure that the environmental consequences of growth are being addressed locally/nationally, regionally, and globally, and by finding ways to defuse tensions between economic and environmental policies, APEC can contribute to building a true Asia Pacific community that will allow the process of economic integration to continue.