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# Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment

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# Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment

*Naomi Roht-Arriaza\**

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## I

## INTRODUCTION

When policymakers and scholars think of global environmental rulemaking, they generally think of treaties and declarations of states. The public law model, based on state rights and obligations, has predominated.<sup>1</sup> But alongside that effort, little remarked on by activists or academics, a system of private standards and obligations is de-

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1. For an exhaustive discussion of the number, extent, and content of these treaties and declarations, see, e.g., HARALD HOHMANN, *PRECAUTIONARY LEGAL DUTIES AND PRINCIPLES OF MODERN INTERNATIONAL ENVIRONMENTAL LAW* 205-302 (1994).

veloping. This private law model is applicable to producers of goods and services rather than to states. In this article I explore this parallel private law universe, its genesis, implications, possibilities and dangers. I examine the role a global system of private ordering can play in protecting the environment and whether such private efforts are likely to preempt, presage, complement or undermine public environmental regulations. I discuss the emerging producer-based standards in the context of a shifting paradigm of environmental protection, as well as in the context of the relationship between international trade and the environment. I conclude that the model of private standard-setting and enforcement holds great promise, although the particular set of private environmental management standards now under development is too limited in both genesis and scope to fulfill the potential of the model.

### A. *The Public Law Model of Global Environmental Decisionmaking*

In the last few years, "soft law"<sup>2</sup> and legally binding treaties have proliferated on a wide range of global environmental problems, including climate change, biodiversity loss, ozone depletion, desertification, and marine pollution. The 1992 United Nations Conference on Environment and Development (UNCED) produced an 800-page compendium of commitments that governments agreed to undertake to improve the environment.<sup>3</sup> New treaties and commitments are negotiated regularly.<sup>4</sup>

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2. Commentators have attempted to define soft law, a form of law particularly significant to the realm of international environmental law.

Soft law instruments range from treaties, but which include only soft obligations ("legal soft law"), to non-binding or voluntary resolutions and codes of conduct formulated and accepted by international and regional organisations ("non-legal soft law"), to statements prepared by individuals in a non-governmental capacity, but which purport to lay down international principles.

C.M. Chinkin, *The Challenge of Soft Law: Development and Change in International Law*, 38 INT'L & COMP. L.Q. 850, 851 (1989).

3. Agenda 21, reprinted in THE EARTH SUMMIT: THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED) 128-508 (Stanley P. Johnson ed., 1993) and in 4 AGENDA 21 & THE UNCED PROCEEDINGS 1-638 (Nicolas A. Robinson ed., 1993), covers most major environmental issues in its 40 chapters.

4. Two treaties opened for signature at the 1992 UNCED Conference: Framework Convention on Climate Change, May 9, 1992, 31 I.L.M. 849 [hereinafter Climate Change Convention]; Convention on Biological Diversity, May 22, 1992, 31 I.L.M. 818. Since then, negotiations have produced a Convention on Desertification. See United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa, June 17, 1994, 33 I.L.M. 1328. Talks on management of fish stocks under the auspices of the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks have been successful. See *Fisheries: Nations Agree to Treaty on Straddling Stocks*, GREENWIRE, Aug. 4, 1995, available in LEXIS, News Library, GRNWRE File.

The public law system requires enormous resources to fulfill its many functions, including convincing recalcitrant states to bind themselves, monitoring compliance, and designing effective incentive and sanctioning structures. The system is often characterized by long negotiating delays, weak substantive obligations, inadequate monitoring, pledged resources that never materialize,<sup>5</sup> and ineffective sanctions for even egregious violations of treaty commitments.<sup>6</sup>

Moreover, while the area of global environmental standard-setting and institution-building has advanced quickly relative to other areas of international law, it has only addressed in detail discrete threats to the global environment. International conventions generally cover specific problems such as ozone depletion, climate change, and certain types of marine pollution. The broader the area of concern, however, the less specific the commitments.<sup>7</sup>

In light of these difficulties, some academics<sup>8</sup> and policy analysts<sup>9</sup> have called for more extensive global environmental rulemaking through an organization responsible for standard-setting. However,

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5. For example, a key part of the agreement on protection of the ozone is the provision of funds to less developed countries to switch to non-ozone-depleting substances. Yet of the \$690 million pledged for 1991-96 to fund the switch, only \$400 million had been received by August 31, 1995. *Finances for Ozone Protocol Fund Among Issues to Be Addressed at Meeting*, Daily Rep. for Executives (BNA) 171 (Sept. 5, 1995), available in LEXIS, News Library, DREXEC File.

6. For more on why international environmental rulemaking is so difficult and some suggestions for improving the process, see PETER H. SAND, *LESSONS LEARNED IN GLOBAL ENVIRONMENTAL GOVERNANCE* (1990) and LAWRENCE E. SUSSKIND, *ENVIRONMENTAL DIPLOMACY: NEGOTIATING MORE EFFECTIVE GLOBAL AGREEMENTS* (1994). Some suggestions for improvement, including technical annexes and protocols that may be amended quickly and by majority (or supermajority) vote, increased access for non-governmental organizations, provisional application of treaty provisions, and the like, have already been implemented. See, e.g., Protocol on Environmental Protection to the Antarctic Treaty, Oct. 4, 1991, art. 25.3, 30 I.L.M. 1455, 1470 (supermajority provisions); Climate Change Convention, *supra* note 4, at art. 9 (advisory committee on science).

7. For example, the Law of the Sea Convention covers a broad range of maritime issues, but its provisions on environmental protection are general commitments, not specific regulations, prohibitions or mandates. The Law of the Sea, *opened for signature* Dec. 10, 1982, arts. 192-237, *reprinted in* UNITED NATIONS, *THE LAW OF THE SEA* 70-85. Other treaties, like the Convention on Long-Range Transboundary Air Pollution and Its Protocols, contain more specific obligations but only deal with limited problems, such as acid rain in the Northern Hemisphere. See Convention on Long-Range Transboundary Air Pollution, Nov. 13, 1979, 18 I.L.M. 1442; Protocol Concerning the Control of Emissions of Nitrogen Oxides or Their Transboundary Fluxes, Oct. 31, 1988, 28 I.L.M. 212 (1989). In between are treaties ranging from those dealing with problems like ozone depletion (more specific) to biodiversity and climate change (less specific).

8. See, e.g., Sir Geoffrey Palmer, *New Ways to Make International Environmental Law*, 86 AM. J. INT'L. L. 259 (1992); Daniel Esty, *GATTing the Greens: Not Just Greening the GATT*, FOREIGN AFF., Nov.-Dec. 1993, at 32.

9. Gareth Porter of the Environmental and Energy Study Institute proposes that the U.N. Environmental Programme assume the task of establishing minimal environmental standards. *Time is Called Ripe for Renewed Talks on Minimum Eco-Standards for Industry*, 17 Int'l Env't Rep. (BNA) No. 18, at 728 (Sept. 7, 1994).

such calls have been impossible to implement since states have different visions for any such institution.<sup>10</sup>

Consider how international legal obligations in the environmental arena are currently structured. To enter an environmental agreement, states must first agree to implement certain protections. Examples include reducing emissions, conserving wildlands, and phasing out the use of certain substances. As a second step, states then enact domestic legislation which specifies what domestic producers must do. Thereafter, states must allocate the burdens of the new rules among all the private and public producers affected, ensure that standards are clear, and take action against noncompliers. In this way, states harness the more developed regulatory and sanctioning apparatuses of domestic law to serve goals set by international agreements. To a large extent, domestic law serves to induce or compel changes in the behavior of private entities such as landowners, producers, or consumers; it is these private entities, not the state,<sup>11</sup> who emit carbon dioxide, use chlorofluorocarbons (CFC's), or generate hazardous wastes.

Conversely, when some producers within a state engage in practices that violate international commitments, it is the state as a whole, and all the producers identified with that state, who must generally suffer any sanctions imposed either by international agreement or through the unilateral acts of powerful states. These sanctions, such as trade penalties, loss of development financing or public opprobrium, inure to the state as a whole. Thus, when Mexican tuna fishing boats killed too many dolphins, the United States barred imports of all tuna from Mexico, even though some of the Mexican tuna boats probably carefully avoided killing dolphins.<sup>12</sup> Under this regime, the hope is that a state will regulate, fine, embarrass, or otherwise pressure its recalcitrant domestic producers into line. If it does not, there

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10. For an account of the debates over the form, mandate, and financing of such an organization during UNCED, see generally, *NEGOTIATING INTERNATIONAL REGIMES: LESSONS LEARNED FROM THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED)* (Bertram I. Spector et al. eds., 1994) and Peter H. Sand, *UNCED and the Development of International Environmental Law*, C795 A.L.I.-A.B.A. 747, 759-61 (1993), available in WESTLAW, ALI-ABA Database.

11. This is only true, of course, where the state does not directly own or manage production facilities. However, the global wave of privatization of state enterprises means that a smaller and smaller proportion of enterprises may be state-owned through time. See, e.g., *Liberalization of Trade in Services Called Modest by World Bank Economist*, 63 *Banking Rep. (BNA)* No. 10, at 383.

12. See *Marine Mammal Protection Act*, 16 U.S.C. § 1371(a)(2) (1988) (prohibiting all tuna imports from countries without appropriate certification regarding dolphin mortality). The dispute over dolphin mortality rates in the Eastern Tropical Pacific gave rise to the well-known "tuna-dolphin" dispute under the General Agreement on Tariffs and Trade (GATT). For a discussion of the Tuna/Dolphin Dispute and the GATT Panel Report, see generally, Jeffrey L. Dunoff, *Reconciling International Trade with Preservation of the Global Commons: Can We Prosper and Protect?*, 49 *WASH. & LEE L. REV.* 1407 (1992).

is little other states can do against the specific group of offending producers.<sup>13</sup> As a result, responsible firms within each state are penalized for the violations of others.

This two-step arrangement undermines the effectiveness of global environmental regulation in several ways. Translating international obligations into domestic law requires both legislation and enforcement. While steering international agreements through the domestic political process may be tricky,<sup>14</sup> legislation is the easy part. Many states, especially poorer ones, have neither the administrative infrastructure nor the public funds to ensure that once domestic laws are enacted, private actors change their behavior in order to allow the state to comply with its international obligations.<sup>15</sup> Hence, commitments undertaken are not fulfilled. Even assuming the best political will, they founder on the lack of resources, trained personnel, and administrative ability. The result is "paper parks," paper plans, and the like.

The global nature of corporations exacerbates problems of enforcement, especially in poorer states, because these entities can shift capital and operations around the world. Some 300 corporations con-

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13. Although a number of international environmental agreements provide for consultations or consensual dispute resolution, these mechanisms have rarely if ever been used. *See, e.g.*, Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), Mar. 3, 1973, art. XVIII, 12 I.L.M. 1085, 1094; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes, Mar. 22, 1989, arts. 20, 28 I.L.M. 649, 675. I am unaware of any disputes which formally invoked these mechanisms. Equally rare are international arbitral or judicial decisions holding a state liable for failure to enforce an international environmental agreement. Monitoring of states' compliance is possible, however, through treaty mechanisms like those established in Annex III (Non-Compliance Procedure) of the Montreal Protocol on Substances that Deplete the Ozone Layer, (1987), reprinted in HARALD HOHMANN, 3 BASIC DOCUMENTS OF INTERNATIONAL ENVIRONMENTAL LAW 1704, 1731 (1992). There is no provision for sanctions for non-compliance in the Annex, however. *Id.* The international system of enforcement can be charitably described as undeveloped.

14. Many treaties, like the Biodiversity Convention and the Basel Convention on Hazardous Wastes, have still not been ratified by many of their signatories. While the Biodiversity Convention was originally signed by 167 nations, *Biodiversity Convention Concludes Threat to Environment is Great*, 20 World Env't Report (BPI) No. 21, Dec. 21, 1994, available in LEXIS, ENVIRN Library, ZEV1 File, it has been ratified by about 120 nations. *U.N. Experts' Meeting Recommends Protocol on Genetically Modified Organisms*, 18 Int'l Env't Rep. (BNA) No.16, at 599 (Aug. 9, 1995). The United States has signed but not ratified both the Biodiversity Convention, *id.*, and the Basel Convention. *Hazardous Waste: Export Ban to Non-OECD Nations Expected to be Formalized at Meeting*, Int'l Env't Daily (BNA), Sept. 1, 1995, available in LEXIS, ENVIRN Library, BNAIED File. European environmentalists regularly criticize the lag time between adoption of European Community directives on the environment and their translation into national law. *See, e.g.*, Patrick E. Thieffrey & Peter E. Nahmias, *The European Community Regulation on Control of Waste and the Adoption of Civil Liability*, 14 HASTINGS INT'L & COMP. L. REV. 949, 962 (1991). Less developed states confront even more difficulties.

15. *See* John Ntambirweki, *The Developing Countries in the Evolution of International Environmental Law*, 14 HASTINGS INT'L & COMP. L. REV. 905 (1991).



trol a quarter of the world's productive assets;<sup>16</sup> many have gross products larger than those of many states.<sup>17</sup> Corporations' mobility and wealth reduce the ability of any one state to control them. Corporations can "use overseas subsidiaries, joint ventures, licensing agreements, and strategic alliances to assume foreign identities when it suits their purposes."<sup>18</sup> Further, they can shift assets to other countries if national regulatory actions are perceived as impediments.<sup>19</sup> This mobility and power also means that "national" industries are, to a significant degree, "national" in name only. For example, Mitsubishi plants in developing countries may receive beneficial treatment under a treaty<sup>20</sup> or statute<sup>21</sup> even though the technology, financing, and decisionmaking come from Japan.

The current public law process only makes sense if it is the most effective and efficient system for translating the agreed-upon international rules into changes in the behavior of firms and other polluting entities. In light of the difficulties in implementing and monitoring global agreements, compounded by corporate globalization which limits state enforcement power, entirely state-based regulation of the global environment may have become anachronistic at best.

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16. RICHARD J. BARNET & JOHN CAVANAGH, *GLOBAL DREAMS* 423 (1994).

17. *Id.* at 14.

18. *Id.* at 280. Labor Secretary Robert Reich has written that U.S.-based transnational corporations are becoming global entities with no special relationship to the United States. ROBERT B. REICH, *THE WORK OF NATIONS* 110-18 (1991).

19. This mobility may take the form of movement of assets and profits, as through transfer pricing and other such devices, as well as through decisions about location or relocation of plants. Recent debates over the passage of the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT) in the United States have focused on the extent to which global corporations move production facilities offshore in response to tighter environmental rules. The empirical data is inconclusive. One study of furniture manufacturers that relocated from the Los Angeles area to Mexico concluded that both labor costs and air pollution control standards were the major reasons for relocating, though there was insufficient data to compare the relative strength of these factors. GENERAL ACCOUNTING OFFICE, *U.S.-MEXICO TRADE: SOME U.S. WOOD FURNITURE FIRMS RELOCATED FROM LOS ANGELES AREA TO MEXICO* 4 (1990). See also Patrick Low & Alexander Yeats, *Do "Dirty" Industries Migrate?*, in *INTERNATIONAL TRADE AND THE ENVIRONMENT* 89, 102-03 (Patrick Low ed., 1992) (finding environmental compliance costs to be one of many potential factors that influence siting decisions of industry). Even so, the perceived seriousness of the threat of loss of major industrial employers may be sufficient to reduce the range of regulatory options a state is willing to entertain.

20. For example, provisions of the Montreal Protocol on Substances that Deplete the Ozone Layer provide extra time for developing-country parties to phase out CFC use. Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, art. 5, 26 I.L.M. 1541, 1555.

21. For example, under the Caribbean Basin Economic Recovery Act, imports from some developing countries may enter the U.S. duty-free. Caribbean Basin Economic Recovery Act, 19 U.S.C. §§ 2701-2706 (1988).

*B. A Private Law Model of Global Environmental Regulation and Incentives*

An alternative model would rely at least in part on market-based incentives and disincentives to change producer behavior directly. This approach would involve a private, producer-based system of international environmental standards. To explore the potential utility of such an approach, I look at the emerging environment-related work of the International Organization for Standardization (ISO).

The ISO is developing standards for environmental management systems, environmental auditing, product life-cycle analysis, and environmental labelling.<sup>22</sup> Influenced primarily by business interests from large countries, ISO is putting in place "voluntary" standards for corporations and other entities. But the process is neither fully private nor fully voluntary. The standards may affect the public regulatory process in a number of ways: global and regional trade agreements may explicitly recognize them; government regulations may refer to them for definition of terms; and government procurement rules may adopt them. Further, market pressures from consumers, financiers, insurers, and competitors may convert them to prerequisites for companies wishing to do business in large markets.

The drafting of these standards requires a myriad of value-laden determinations. For example, the drafters must decide which environmental impacts are significant, which criteria and what methodology should determine whether products are "environmentally sound," and how much public information and oversight there should be over an enterprise's environmental record and practices. The ISO is considering expanding its effort to include occupational health and safety rules, an area with similarly broad policy implications.<sup>23</sup> Setting these new standards catapults the ISO directly into the forefront of current debates over the appropriate approaches to regulation and responsible corporate environmental behavior. In this sense, it becomes important to consider the representativeness and legitimacy of the standards.

As public environmental regulation around the world shifts away from "command and control" approaches to market-incentive and information-based strategies like taxes, tradeable permits, and eco-labels, these "private" strategies are assuming greater importance in environmental protection efforts both nationally and internationally. The regulatory paradigm of the 1970's, based on emissions limits that

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22. International Organization for Standardization, *Sustainable Industrial Development: A Role for International Standards*, ISO BULL., Apr. 1992, at 2, 5-7.

23. MARY K. MCKIEL, U.S. EPA, TRIP REPORT: ANNUAL MEETING OF THE ISO TECHNICAL COMMITTEE FOR ENVIRONMENTAL MANAGEMENT 3 (1995) (on file with author).

industry had to meet by installing scrubbers, filters, and other “end-of-the-pipe” devices, is widely recognized as inadequate.<sup>24</sup> In its place, the U.S. Environmental Protection Agency (EPA) and other regulatory agencies are moving slowly and tentatively toward a “pollution prevention” paradigm. Its purpose is to reduce pollution at the source, by changing production inputs and distribution processes.<sup>25</sup> The new paradigm makes greater use of market-based, information-based, and voluntary approaches. For example, EPA has urged industry participation in voluntary toxics reduction programs.<sup>26</sup> It has also begun awarding the equivalent of eco-labels to computers that use energy efficiently.<sup>27</sup> The U.S. federal government has recently started using procurement to create a market for environmentally preferable goods: Executive Order 12,873 requires government agencies to use recycled paper, recycled tires, and other such “environmentally preferable” goods wherever possible.<sup>28</sup> The EC Commission is moving toward similar market- and information-driven forms of environmental incentive programs.<sup>29</sup> Japan, too, is undertaking greater “pollution prevention” activity.<sup>30</sup>

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24. See generally Bruce Ackerman & Richard Stewart, *Reforming Environmental Law*, 37 STAN. L. REV. 1333 (1985); BARRY COMMONER, *MAKING PEACE WITH THE PLANET* 19-55 (1992).

25. The 1990 Pollution Prevention Act required EPA to set up a source reduction program and to work with states to develop innovative approaches to pollution prevention. 42 U.S.C.A. § 13101 (West Supp. 1995). For a discussion of several promising approaches, see WORLD WILDLIFE FUND, *RETHINKING THE MATERIALS WE USE: A NEW FOCUS FOR POLLUTION POLICY* 13-132 (Ken Geiser & Frances H. Irwin eds., 1993).

26. Office of Pollution Prevention, U.S. Environmental Protection Agency, *EPA Unveils Pollution Prevention Strategy*, POLLUTION PREVENTION NEWS (U.S. EPA), Jan./ Feb. 1991, at 1.

27. “Energy Star” computers, monitors and printers automatically power-down to conserve energy when they are not being used. Manufacturers representing 70 percent of the desktop computer market and 90 percent of the laser printer market in the United States have entered into partnership agreements with the EPA to produce and label such products. U.S. EPA, EPA/430-F-93-049, *ENERGY STAR COMPUTERS* (1993).

28. “‘Environmentally preferable’ means products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.” Exec. Order No. 12,873, § 201, 58 Fed. Reg. 54,911 (1993), reprinted in 42 U.S.C.A. § 6961 (West 1995). The Executive Order creates a Federal Environmental Executive within EPA to oversee federal agency compliance with the order, to disseminate information on waste prevention, waste reduction, and market sources of recycled or environmentally preferable goods. *Id.* at § 301.

29. See *Commission and U.S. EPA to do Joint Environment Study*, The Reuter Eur. Community Rep., October 19, 1993, available in LEXIS, INTLAW Library, ECLAW File.

30. Recent amendments to Japan’s Waste Disposal and Public Cleansing Law stress source reduction, while the Law for Promoting the Utilization of Recycled Resources designates certain industries, products, and by-products for recycling and provides incentive schemes for companies and individuals to recycle. Misutsune Yamaguchi, *Japanese Companies and the Environment*, 24 LAW IN JAPAN 62, 74-76 (Dwight Van Winkle trans., 1991); see also *New Plan, Law Being Drafted as Follow-Up to Rio Summit Pledges*, 15 Int’l Env’t Rep. (BNA) No. 13, at 440 (July 1, 1992) (stating that the new comprehensive Japa-

The drafters of the ISO standards see many potential benefits arising from a global set of environmental management standards; such standards will “avoid multiple registrations, inspections, certifications, labels and conflicting requirements and provide a single system for global organizations to implement everywhere they operate.”<sup>31</sup> Through harmonization, the standards are expected to facilitate international trade and to reduce the risk that environment-related measures are used as pretexts for trade barriers. In addition, they “may, in some countries, obviate the need for certain regulatory ‘command and control’ initiatives.”<sup>32</sup> While “[s]ome companies will implement the standards to project the sincerity and credibility of their commitment to environmental protection[.]. . . [o]thers will use them to help manage and maintain their regulatory compliance posture.”<sup>33</sup> Thus, standards development has two objectives: (1) proactive—aimed at streamlining regulations, fostering commerce, and improving performance; and (2) defensive—aimed at facilitating legal compliance while avoiding more onerous mandatory environmental requirements.

### C. Organization and Scope

Part II of this article recounts the background to the current ISO standard-setting effort. Part III discusses the development of the standards within the ISO. Part IV looks at the possible implications of the standards for national and international regulatory action. Part V focuses on concerns raised by such standards. Part VI evaluates the potential of a regulatory regime aimed at enterprises rather than states, and discusses the role of private voluntary standards in the context of current debates over the relationship between trade and the environment.

One initial caveat is in order. As of this writing, there are no final ISO 14000 standards.<sup>34</sup> The process is still unfolding, and although the general structure of the standards is set, many changes are still possible. I therefore focus on issues that arose in the course of drafting the standards, and on the process itself, rather than on the final language. Where I do discuss the substance of the standards, the dis-

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nese environmental law will stress new, non-polluting technologies and energy conservation).

31. Joe Cascio, *International Environmental Management Standards: ISO 9000's Less Tractable Siblings*, ASTM STANDARDIZATION NEWS, Apr. 1994, at 44, 47.

32. *Id.*

33. *Id.*

34. The bulk of the research for this article was completed during 1994. To the extent possible, the information has been updated to July 1995, but gaps remain. As of July 1995, the schedule for the EMS standard, the most advanced of the standards being considered by TC 207, foresees its publication as a Draft International Standard in October 1995, with final approval by January 1997. Other parts of the standard are on a slower timetable. See McKIEL, *supra* note 23, at A1-2.

cussion should be taken as preliminary. The final standards may be slightly different.

## II

### PRECURSORS AND PRECONDITIONS TO VOLUNTARY INTERNATIONAL STANDARDS IN THE ENVIRONMENTAL ARENA

#### A. *The ISO and its Affiliated Bodies*

The ISO was founded in 1946 to promote international standards that would facilitate the exchange of goods and services around the globe.<sup>35</sup> It is a federation of over 100 national standards bodies, each from a different country.<sup>36</sup> A member body of ISO is that body "most representative of standardization in its country."<sup>37</sup> Each national committee determines its own composition; while some national committees are almost entirely composed of private interests, others have substantial government representation.<sup>38</sup> The ISO has a complex structure based on technical committees (TC's), which may, in turn, establish subcommittees (SC's) and working groups (WG's).<sup>39</sup> Each national group delegates its own members and decides the stance they will take in the ISO technical committees and subcommittees. The national groups may form Technical Advisory Groups (TAG's) to develop a national position on a proposed standard and to coordinate participation in the committees and subcommittees.<sup>40</sup> These TAG's may, in turn, subdivide into sub-TAG's on various aspects of the standard.<sup>41</sup> By the beginning of 1994, there were 182 technical committees, 630 subcommittees, 1918 working groups, and 24 ad-hoc study groups.<sup>42</sup> Each technical committee or subcommittee has a secretariat, while the less formal working groups have conveners.<sup>43</sup>

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35. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, MEMENTO 3 (1993) [hereinafter ISO MEMENTO] (on file with author).

36. See OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. EPA, EPA/742-F-95-006, ISO 14000: INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS 1 (1995).

37. ISO MEMENTO, *supra* note 35, at 3.

38. A majority of the ISO member bodies are governmental organizations or organizations incorporated by public laws. *Id.* The United States' official member body is the American National Standards Institute (ANSI). OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. EPA, EPA/742-F-95-005, ROLE OF VOLUNTARY STANDARDS 2 (1995).

39. ISO MEMENTO, *supra* note 35, at 4.

40. See OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. EPA, *supra* note 36, at 3-4.

41. *Id.*

42. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO IN FIGURES 1 (1994) [hereinafter ISO IN FIGURES] (on file with author).

43. The ISO standard development process defines the relationship between conveners and secretariats. While conveners oversee the actual draft standard writing at the WG level, see OFFICE OF POLLUTION PREVENTION AND TOXICS, U.S. EPA, *supra* note 36, the committees and subcommittees, headed by secretariats, are the bodies which promulgate

ISO's work products are known as International Standards. To date, there are over 9000 standards, mostly in the fields of mechanical engineering, basic chemicals, non-metallic materials, information processing, graphics, and photography.<sup>44</sup> To be adopted, an international standard must pass through a complex process. The process starts with the formation of a TC by the ISO Council.<sup>45</sup> The members of the TC organize the work into its component parts and may assign it among SC's and WG's.<sup>46</sup> It is through negotiating and discussing within these SC's and WG's as well as in the national TAG's that drafts of international standards are generated. The various SC and WG drafts are eventually integrated into a committee draft (CD) which is circulated within the TC or SC for further study.<sup>47</sup> TC members eventually must approve the CD by consensus.<sup>48</sup> After the TC approves the draft, it becomes a "draft international standard" (DIS), and is circulated to the entire ISO membership for a vote. A 75% majority must approve the standard for it to be published as an international standard.<sup>49</sup>

### B. *Origins of the ISO 14000 series*

Until the 1980's, ISO standards were limited and eminently technical. They touched minimally on the environmental area in providing, for example, uniform methodologies and equipment standards for testing toxicity or air pollution levels.<sup>50</sup> Five events set the stage for the current standard drafting process. First, the European Community's<sup>51</sup> recently adopted approach to technical regulation, coupled with other European initiatives in the areas of eco-auditing and in labelling or banning certain products for environment-related reasons, propelled ISO into the environmental arena to prevent unwanted

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the draft international standards (DIS's) which member bodies vote on. ISO MEMENTO, *supra* note 35, at 5.

44. ISO IN FIGURES, *supra* note 42, at 3.

45. See ISO MEMENTO, *supra* note 35, at 4.

46. *Id.*

47. *Id.* at 5.

48. See *id.*

49. *Id.*

50. For example, TC 146 (air quality) and TC 147 (water quality) have written over 125 standards or draft standards, mostly on measurement and testing parameters. TC 190 on soil quality and TC 200 on solid wastes are working in the waste management field. See *Sustainable Industrial Development*, *supra* note 22, at 7.

51. In 1992, the Maastricht Treaty incorporated the European Community (EC) into a broader monetary and political entity called the European Union (EU), which has since expanded its membership. Treaty on European Union and Final Act, Feb. 7, 1992, 31 I.L.M. 247. However, because most of the regulations and directives discussed here pre-date Maastricht or are unaffected by the changes, I continue to refer to the EC where appropriate.

competitive effects on global industry.<sup>52</sup> Second, the negotiation of the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), together with emerging controversy over the role of trade agreements in environmental protection, raised questions about harmonization of standards.<sup>53</sup> Third, as uncoordinated corporate environmental quality programs and eco-labelling schemes proliferated, business and consumer policy groups asked ISO to study them.<sup>54</sup> Businesses were especially concerned about the “growing risk of consumer confusion in the light of differing labelling programmes around the world.”<sup>55</sup> Fourth, the success of the ISO’s series 9000 quality control standards became a viable model for designing and implementing environmental management standards.<sup>56</sup> Finally, in response to requests during preparation for the 1992 United Nations Conference on Environment and Development (UNCED), the ISO began exploring a possible role in “sustainable development.”<sup>57</sup>

### 1. *The “New Approach” in Europe and the Development of Regional Standards*

The European Community (EC) turned to private standard-setting groups early, which created pressure for supra-European standards. The EC wanted to address the perceived need to harmonize regulatory standards in the environment and health/safety areas in order to facilitate intra-European trade.<sup>58</sup> Initially, the European Commission<sup>59</sup> tried to harmonize differing national standards on a product-by-product, issue-by-issue basis.<sup>60</sup> It was soon overwhelmed by the sheer number of potential regulations.<sup>61</sup> Thus, in 1985 the EC

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52. See discussion *infra* notes 58-75 and accompanying text.

53. See discussion *infra* notes 76-97 and accompanying text.

54. See discussion *infra* notes 98-107 and accompanying text.

55. *Sustainable Industrial Development*, *supra* note 22, at 2.

56. See discussion *infra* notes 108-21 and accompanying text.

57. See discussion *infra* note 122 and accompanying text. Widespread use of the term “sustainable development” dates from its adoption in the Report of the World Commission on Environment and Development. WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *OUR COMMON FUTURE* (1987). That report defined it as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.” *Id.* at 43. The UNCED was, among other things, an effort to specify and implement the concept of sustainable development. HOHMANN, *supra* note 1, at 319.

58. COOPERS & LYBRAND, *EC COMMENTARIES: STANDARDISATION 1-2.1* (1994), available in LEXIS, World Library, ECCOM File.

59. The European Commission’s mandate charges it with ensuring “the proper functioning and development of the [European] Common Market.” As a result, the Commission is the EC’s principal administrative organ. See MARK W. JANIS, *AN INTRODUCTION TO INTERNATIONAL LAW* 296-97 (1993).

60. Roszell D. Hunter, *Standardization and the Environment*, 16 *Int’l Env’t Rep.* (BNA) No. 5, at 185 (Mar. 29, 1993).

61. *Id.*

developed a "new approach," starting in the product safety area. Under the "new approach," the Commission establishes the "essential requirements" for a product to be sold freely throughout the European Community.<sup>62</sup> The technical specifics are left to voluntary standards developed by private bodies, especially the Comité Européen de Normalization (CEN),<sup>63</sup> the regional standards body.<sup>64</sup> Compliance with these harmonized standards creates a presumption that the essential requirements of the regulation have been met.<sup>65</sup> Therefore, the CEN became a de facto regulatory agency for the EC. To do business in Europe, non-European companies also had to comply with rules drafted by the CEN. Subsequently, these companies began arguing that the rules should be the product of an international process, to be elaborated by the ISO rather than the CEN.

Other European developments are currently driving the ISO environmental standard-setting process. A regulation on eco-management and audit schemes (EMAS) was scheduled to, and did, take effect in early 1995.<sup>66</sup> While the scheme is ostensibly voluntary, many companies expect that, like an earlier quality control scheme,<sup>67</sup> it will become de facto mandatory in the European market. The EMAS provides for periodic audits, management systems, external verifiers, and a public summary of the environmental impacts of a company's (or industrial site's) production processes.<sup>68</sup>

In addition, in March 1992, the European Council of Ministers<sup>69</sup> passed a regulation setting up a Community eco-label for environmentally superior goods, with specific criteria to be elaborated by product

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62. See generally COOPERS & LYBRAND, *supra* note 58, at 5.

63. Hunter, *supra* note 60, at 185; COOPERS & LYBRAND, *supra* note 58, at 5.2.

64. COOPERS & LYBRAND, *supra* note 58, at 3.2. In addition to developing its own standards, CEN promotes the implementation of ISO standards. *Id.*

65. *Id.* at 5.2.

66. The Council of the European Community passed a regulation allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit scheme. Council Regulation 1836/93, art. 1, 1993 O.J. (L 168) 1 [hereinafter EMAS]. It was scheduled to go into effect in April 1995, *id.* at art. 21, and did in fact go into effect then. See *Draft ISO Management Standard Approved*, 18 Int'l Env't Rep. (BNA) No. 14, at 527 (July 12, 1995).

67. The ISO 9000 quality control scheme is discussed *infra* at notes 108-21 and accompanying text.

68. Council Regulation 1836/93, art. 3, 1993 O.J. (L 168) 3. See also text accompanying note 144.

69. The Council consists of representatives of the Member States and is the main legislative organ of the European Community. JANIS, *supra* note 59, at 296.



category.<sup>70</sup> The EC has now developed criteria for labelling certain consumer durables like washing machines and dishwashers.<sup>71</sup>

Finally, emerging trade-restrictive legislation in Europe has employed international standards as a benchmark. Most notably, in 1991, the EC passed a regulation<sup>72</sup> making a ban on steel-jaw leghold traps<sup>73</sup> within the Community fully effective by January 1, 1995.<sup>74</sup> The regulation further prohibits EC countries from importing some furs from non-EC countries where use of the steel-jaw trap is still allowed, unless these countries have adopted "internationally agreed humane trapping standards."<sup>75</sup>

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70. Council Regulation 880/92, 1992 O.J. (L 99) 1. The scheme is intended to promote the design, production, marketing, and use of products which have a reduced environmental impact during their entire life cycle. *Id.* at art. 1. Specific ecological criteria for each product group (defined as products which serve similar purposes and which have equivalent uses) are to be defined by the Commission in consultation with Community-level representatives of industry, commerce, consumer, and environmental organizations. *Id.* at arts. 5, 6. Manufacturers or importers will then apply to "competent bodies" to be designated within each member state, who will decide if the eco-label will be awarded. *Id.* at art. 10. The general list of criteria annexed to the regulation is based on product life-cycle analysis. *Id.* at annex I.

71. Commission Decision 93/430, 1993 O.J. (L 198) 35 (washing machines). Commission Decision 93/431, 1993 O.J. (L 198) 38 (dishwashers). The eco-label is to be awarded on the basis of meeting minimum performance standards for energy use, water use, and recyclability of certain plastic parts. Ecological criteria have now also been defined for toilet paper, paper towels, and soil improvers. *EU Publishes Eco-label Criteria for Soil Improvers, Toilet Paper and Paper Towels*, 18 Int'l Env't Rep. (BNA) No. 3, at 96 (Feb. 8, 1995). Recently, criteria for laundry detergents and packaging were adopted. *Commission Approves Eco-label Criteria for Laundry Detergents, Packaging*, 18 Int'l Env't Rep. (BNA) No. 16, at 603 (Aug. 9, 1995).

72. Council Regulation 3254/91, 1991 O.J. (L 308) 1.

73. A steel-jaw leghold trap is "a device designed to restrain or capture an animal by means of jaws which close tightly upon one or more of the animal's limbs, thereby preventing withdrawal of the limb or limbs from the trap." *Id.* at art. 1.

74. *Id.* at art. 2.

75. Council Regulation 3254/91, art. 3, 1991 O.J. (L 308) 1. The regulation prohibits fur of several species from entering the EU unless, in the country where the pelts originate, "there are adequate administrative or legislative provisions in force to prohibit the use of the leghold trap; or the trapping methods used for the species listed in Annex I meet internationally agreed humane trapping standards." *Id.* The regulation raised concerns that it was simply protecting the EC pelt industry. James R. Lee, *Process and Product: Making the Link Between Trade and the Environment*, 6 INT'L ENVTL. AFF. 320, 323 (1994).

The Regulation specifically recognizes that "research into the development of humane trapping methods is already in progress and . . . the Community will take into account the work being carried out by the International Standardization Organization [sic]." Council Regulation 3254/91, art. 3, 1991 O.J. (L 308) 1. An ISO technical committee, TC 191, has been meeting since 1987 to devise international standards for trapping methods. In the wake of the Regulation, TC 191 stepped up its work, hoping to devise a standard for "internationally agreed humane trapping standards" that could then be used to evaluate whether furs from a given state complied with the EC regulation. Telephone Interview with Cathy Liss, Executive Director, Animal Welfare Institute (Apr. 1994). After considerable controversy, opponents of trapping managed to delete the word "humane" from the proposed ISO standards, making them inapplicable to the EC regulation. *Friends of*

## 2. *The Uruguay Round and the Trade/Environment Interface*

The push to facilitate trade through harmonization and to foreclose the use of non-tariff barriers also provides part of the impetus for the current ISO effort. The use of widely varying, inconsistent national standards for environmental, health, and safety protection can impede the free flow of goods. These regulatory inconsistencies have historically been addressed through reciprocal recognition of national standards, pre-market harmonization of product attributes, and global standards.<sup>76</sup> Since 1974, international trade agreements have shown a preference for harmonized global standards.<sup>77</sup> With the signing of the Final Act of the Uruguay Round,<sup>78</sup> this preference has become considerably stronger.

The Agreement on Technical Barriers to Trade (TBT), which is part of the GATT 1994/WTO Agreement, covers government regulations on products, like those relating to size, quality, or emissions levels. It states “[w]here technical regulations are required and relevant international standards exist or their completion is imminent, Members shall use them, or the relevant parts of them, as a basis for their technical regulations . . . .”<sup>79</sup> It thus creates a preference for

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*Furbearers: Delegations that Voted for Removal of the Word “Humane” from the Title of the Trap Standards*, ANIMAL WELFARE INST. Q., Winter 1994, at 11.

76. See generally Candace Stevens, *Harmonization, Trade and the Environment*, 5 INT’L ENVTL. AFF. 42 (1993).

77. See Steve Charnovitz, *Environmental Harmonization and Trade Policy*, in TRADE AND THE ENVIRONMENT: LAW, ECONOMICS AND POLICY 267, 273 (Durwood Zaelke et al. eds., 1993). An example of this preference for harmonized standards (from the 1970’s) is found in the 1979 Agreement on Technical Barriers to Trade, an agreement supplemental to the General Agreement on Tariffs and Trade. Agreement on Technical Barriers to Trade, reprinted in GENERAL AGREEMENT ON TARIFFS AND TRADE, 26 BASIC INSTRUMENTS AND SELECTED DOCUMENTS 9 (1980) [hereinafter Standards Code]. This agreement generally required parties to use international standards where they existed. *Id.* at art. 2.2.

78. Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, 33 I.L.M. 1125. The Final Act updated and expanded the GATT 1947; that expanded version is known as GATT 1994. In addition, it established the World Trade Organization (WTO) as a formal institutional structure for the GATT. *Id.* at art. 1. The agreement, including its Annexes, will be referred to as the GATT 1994/WTO Agreement, while the new institution will be referred to as the WTO.

79. Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Agreement on Technical Barriers to Trade, Apr. 15, 1994, art. 2.4, reprinted in H.R. Doc. No. 316, 103d Cong, 2d Sess. 1428 (1994) [hereinafter TBT Agreement]. The text continues: “[E]xcept when such international standards or relevant parts would be an ineffective or inappropriate means for the fulfilment [sic] of the legitimate objectives pursued, for instance because of fundamental climatic or geographical factors or fundamental technological problems.” *Id.* Although this qualifier allows states to impose their own standards, it puts the burden on them to justify such departures.

international standards, and a presumption that international rules are consistent with the GATT 1994/WTO Agreement.<sup>80</sup>

The TBT Agreement also now specifies that standards must be “not more trade restrictive than necessary” to meet a given objective.<sup>81</sup> Unlike the Standards Code, which was a separate, stand-alone agreement applicable only to those GATT contracting parties that specifically accepted it, the TBT applies to all parties to the WTO Agreement.<sup>82</sup> The Agreement on the Application of Sanitary and Phytosanitary Measures (also annexed to the WTO Agreement), which applies to food, crop, or livestock health, also requires parties to base their rules on international standards, guidelines, or recommendations where they exist,<sup>83</sup> and to insure that rules are not more trade-restrictive than required.<sup>84</sup>

The growing number of challenges to domestic health, conservation and environmental laws under the international trade regime has put the relationship between trade and the environment into the global spotlight. In the last few years, challenges have been raised under GATT involving U.S. reformulated gasoline,<sup>85</sup> “gas guzzler”

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80. For greater discussion, see Jennifer Schultz, *The GATT/WTO Committee on Trade and the Environment—Toward Environmental Reform*, 89 AM. J. INT'L L. 423, 426-27 (1995).

81. TBT Agreement, *supra* note 79, at art. 2.2. The TBT Agreement foresees a close relationship between the work of international and national standard-setting bodies and the rules of the GATT 1994. An annexed Code of Good Practice explicitly sets out a close relationship between ISO and the International Electrotechnical Commission (IEC) and the parties to the TBT agreement in the development of international standards. *Id.* at annex 3. The IEC sets international electrical engineering standards and works in conjunction with the ISO. ISO MEMENTO, *supra* note 35, at 6.

82. The TBT Agreement modifies and replaces the earlier Standards Code, *supra* note 77, which bound only those states which specifically agreed to accept it. Although GATT has over 100 parties, less than half had signed onto the old Standards Code. JOHN JACKSON, *RESTRUCTURING THE GATT SYSTEM* 28 (1990).

83. Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Agreement on the Application of Sanitary and Phytosanitary Measures, Apr. 15, 1994, art. 3.1, *reprinted in* H.R. Doc. No. 316, 103d Cong, 2d Sess. 1382 (1994) [hereinafter Sanitary Measures Agreement].

84. *Id.* at art. 5.6. These provisions caused great controversy because they would ostensibly require application of the pesticide residue and food safety standards of the Codex Alimentarius Commission, a body affiliated with the United Nations established to facilitate fair trade in food, consumer protection and coordination of international food and safety standards. *GAO Recommends Comprehensive Study on Different U.S. and Codex Standards*, 15 Chem. Reg. Rep. (BNA) No. 29, at 994 (Oct. 18, 1991). The Codex standards are less extensive in scope and potentially less stringent than United States' standards. The use of international standards is not required if a party can show scientific justification. Sanitary Measures Agreement, *supra* note 83, at art. 3.3. However, a party shall “avoid arbitrary or unjustifiable distinctions in the levels it considers to be appropriate in different situations, if such distinctions result in discrimination or a disguised restriction on international trade.” *Id.* at art. 5.5. This may be problematic for states like the U.S., where different agencies administer inconsistent health-based standards.

85. The 1990 Clean Air Act requires gasoline manufacturers to reduce smog-causing contaminants in gasoline from a set baseline, but because foreign oil producers had inade-

and fuel economy standards,<sup>86</sup> marine mammal laws,<sup>87</sup> timber export bans,<sup>88</sup> as well as Canadian fishing<sup>89</sup> and beer can recycling laws.<sup>90</sup> In part because of these challenges, as well as more general concerns about the environmental impacts of unregulated trade, environmentalists in the U.S. and many other countries opposed ratification of the WTO Agreement.<sup>91</sup>

The GATT contracting parties, in response to this attention, have reluctantly agreed to study the interface between trade and the environment. In 1992, after a twenty-year hiatus, GATT reactivated its Working Group on Environmental Measures and International Trade.<sup>92</sup> By April 1994, the GATT contracting parties had agreed to a permanent committee on Trade and the Environment as part of the newly-formed World Trade Organization.<sup>93</sup> Although to date the committee has made no decisions, eco-labelling, process standards, and other issues potentially encompassed by the ISO standards are expected to form part of its report.<sup>94</sup>

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quate data on fuel composition, their baseline was set differently. 42 U.S.C.A. § 7545(e) (West 1992); 40 C.F.R. § 80.91. On April 10, 1995, the WTO established a panel to investigate gasoline discrimination against foreign gasoline producers under this regulation. *WTO Dispute Mechanism to be Tested in U.S.-Venezuela Gasoline Dispute*, 13 Int'l Trade Rep. (BNA) No. 14, at 617 (Apr. 5, 1995).

86. In 1993 the European Community challenged three separate United States measures which impacted the European automobile industry as inconsistent with the GATT. These measures were a "gas guzzler" tax, a luxury tax, and the Corporate Average Fuel Economy (CAFE) regulation which required that manufacturers and importers calculate an average fuel economy value for their entire fleet of vehicles. The GATT Dispute Resolution Panel decided the dispute largely in the United States' favor. See Report of the GATT Dispute Settlement Panel on United States' Taxes on Automobiles adopted Oct. 11 1994, 33 I.L.M. 1397. For analysis of the "Auto Taxes" case, see Steve Charnovitz, *The GATT Panel Decision on Automobile Taxes*, 17 Int'l Env't Rep. (BNA) No. 22, at 921 (Nov. 2, 1994).

87. See discussion *infra* note 96 and accompanying text.

88. See Brian F. Chase, *Tropical Forests and Trade Policy: The Legality of Unilateral Attempts to Promote Sustainable Development under the GATT*, 17 HASTINGS INT'L & COMP. L. REV. 349, 376-77 (1994).

89. *Canada—Measures Affecting Exports of Unprocessed Herring and Salmon*, Report of the GATT Dispute Resolution Panel adopted Mar. 22, 1988, in 35 BASIC INSTRUMENTS AND SELECTED DOCUMENTS 98 (1989).

90. See Charnovitz, *supra* note 86, at 922.

91. See *Environmental Groups Tell Congress of Unanimous Opposition to Uruguay Round*, 17 Int'l Env't Rep. (BNA) No. 22, at 886 (Nov. 2, 1994).

92. Naomi Roht-Arriaza, *Precaution, Participation, and the "Greening" of International Trade Law*, 7 J. ENVTL. L. & LITIG. 57, 57 (1992). See the same article for a description of some of the conflicts between trade policy and environmental policy that make up the current debate.

93. General Agreement on Tariffs and Trade, Trade Negotiating Committee, Decision on Trade and Environment, MTN.TNC/W/141, Apr. 14, 1994, available in WESTLAW, GATT Database.

94. See *Panel Unable to Agree on Link of WTO With Multilateral Environmental Agreements*, 18 Int'l Env't Rep. (BNA) No. 8, at 661 (Apr. 19, 1994).

Especially important in the ISO context will be the WTO's treatment of process-based measures.<sup>95</sup> Thus, in the most famous clash to date between trade and the environment, the U.S. banned imports of Mexican tuna because the fishing method killed dolphins. A GATT dispute settlement panel concluded that the import restrictions on tuna caught with dolphin-destructive methods were GATT-inconsistent because they "would not directly regulate the sale of tuna and could not possibly affect tuna as a product."<sup>96</sup> To be consistent with GATT, the restrictions would have to target imports based on their inherent product characteristics rather than on their environmental effects.<sup>97</sup>

### 3. *Corporate Environmental Responsibility and "Green Marketing" Programs*

Several business groups have supported international standards for environmental performance. In 1991, the Business Council for Sustainable Development (BCSD) suggested creating international standards that would allow businesses in various sectors to measure their environmental impacts according to comparable criteria.<sup>98</sup> Once these impacts were known, businesses could take necessary measures to reduce them.

The BCSD's initiative dovetailed with various other efforts to increase corporate environmental responsibility. In 1989, a coalition of

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95. James Lee identified 38 disputes involving trade and the environment, Lee, *supra* note 75, at 321, and found that the majority of the disputes involved production processes rather than the inherent characteristics of the goods themselves. *Id.* at 332-35.

96. Report of the GATT Dispute Settlement Panel on United States' Restrictions on Imports of Tuna adopted Sept. 3, 1991, para. 5.14, 30 I.L.M. 1594, 1618 [hereinafter Tuna/Dolphin I Panel]. The case concerned provisions of the U.S. Marine Mammal Protection Act that prohibited imports of tuna from countries that failed to take sufficient measures to ensure the safety of the dolphins that swim with schools of tuna. See Roht-Arriaza, *supra* note 92, at 67; David J. Ross, *Making GATT Dolphin-Safe: Trade and Environment*, 2 DUKE J. COMP. & INT'L L. 345 (1992). However, the GATT Council never formally adopted the panel report. See Charnovitz, *supra* note 86, at 924.

97. Tuna/Dolphin I Panel, *supra* note 96, paras. 5.14, 6.2. On May 20, 1994, a GATT dispute panel decided a second case regarding restrictions on tuna imports, this one challenging the secondary embargo provisions of the Marine Mammal Protection Act, 16 U.S.C. § 1371(a)(2)(C) (1988), as well. Report of the GATT Dispute Settlement Panel on United States' Restrictions on Imports of Tuna adopted May 20, 1994, 33 I.L.M. 839. That panel also adopted a view of GATT that prohibits restricting imports of products based on the manner in which they are made or harvested. *Id.* at para 5.8. In addition, a GATT dispute resolution panel recently held that "Article III:4 does not permit treatment of an imported product less favourable than that accorded to a like domestic product, based on factors not directly relating to the product as such." Report of the GATT Dispute Settlement Panel Report on United States' Taxes on Automobiles, *supra* note 86, at para. 5.54. For analysis of the "Auto Taxes" case, see Charnovitz, *supra* note 86.

98. STEPHAN SCHMIDHEINY, BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT, CHANGING COURSE: A GLOBAL BUSINESS PERSPECTIVE ON DEVELOPMENT AND THE ENVIRONMENT 30 (1992).

socially responsible investors in the United States published the Valdez Principles, a set of voluntary commitments intended to be used by investors to favor environmentally responsible corporations. Corporations that signed on to the principles were supposed to minimize pollutants, resource use, and wastes; complete and make public an annual self-audit of environmental progress; and establish management structures to oversee environmental performance.<sup>99</sup>

Two years later, the International Chamber of Commerce (ICC) created the Business Charter for Sustainable Development in response to recommendations in the 1987 Brundtland Commission Report.<sup>100</sup> The Global Environmental Management Initiative (GEMI) established similar principles of "sustainable development."<sup>101</sup> Further, the Chemical Manufacturers Association (CMA) of North American chemical producers developed a "Responsible Care" program that binds all CMA members.<sup>102</sup>

At the same time, national programs to identify and reward environmentally superior products and companies began, each with its own criteria and methodology. Eco-labelling programs now exist in at least eleven countries as well as the EU and the Nordic Council.<sup>103</sup> Most are seal-of-approval programs operating with some form of government participation.<sup>104</sup> The United States, where such programs are

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99. COALITION FOR ENVIRONMENTALLY RESPONSIBLE ECONOMIES, 1990 CERES GUIDE TO THE VALDEZ PRINCIPLES, reprinted in JOHN R. SALTER, CORPORATE ENVIRONMENTAL RESPONSIBILITY: LAW AND PRACTICE 257 app. (1992).

100. ICC BUSINESS CHARTER FOR SUSTAINABLE DEVELOPMENT, PRINCIPLES FOR ENVIRONMENTAL MANAGEMENT, reprinted in JOHN R. SALTER, CORPORATE ENVIRONMENTAL RESPONSIBILITY: LAW AND PRACTICE 260 app. (1992). The Charter was one of several projects by European and North American business leaders at the May 1990 Bergen Conference "Action for a Common Future," which was itself a follow-up to the Report of the World Commission on Environment and Development (Brundtland Commission) which established the concept of "sustainable development" as a goal. *Id.* at 262.

101. As of October 1991, twenty multinational firms in the United States had signed GEMI. Anthony D. Cortese, *Environmental Laws Under the Nation States*, in TRANSNATIONAL ENVIRONMENTAL LAW AND ITS IMPACT ON CORPORATE BEHAVIOR 35, 44 (Eric J. Urbani et al. eds., 1994).

102. CHEMICAL MANUFACTURING ASSOCIATION, RESPONSIBLE CARE PROGRAMME reprinted in JOHN R. SALTER, CORPORATE ENVIRONMENTAL RESPONSIBILITY: LAW AND PRACTICE 268 app. (1992). The CMA issued the Responsible Care Program in 1991 as a way to assuage public concerns about chemicals and the industry. In addition to rather general principles regarding safe chemical development, production, transportation, use, and the reporting of chemical-related hazards, the Program includes a public advisory panel and a code of management practices with specific management objectives. *Id.*

103. Programs exist in Germany, France, Denmark, the Netherlands, Austria, Canada, Japan, Singapore, New Zealand, and the United States. GARY A. DAVIS, U.S. EPA, EPA/742-R-93-003, THE USE OF LIFE CYCLE ASSESSMENT IN ENVIRONMENTAL LABELLING 17-37 (1993).

104. For example, the German "Blue Angel" program has since 1978 operated as a joint effort of the German Federal Ministry of the Environment, the German Institute for Quality Control and Labelling, and a representative non-governmental Environmental Labelling Jury. *Id.* at 17. The French program is run by the national standards organization,

unofficial, is the exception.<sup>105</sup> A recent EPA study showed that, although the different national programs address the same general environmental issues and the same product categories, they use very different methodologies and parameters to establish an acceptable level of environmental benefit.<sup>106</sup> The proliferation of groups and criteria, as well as of unsubstantiated claims for environmental friendliness, led to increasing calls among both producers and consumers for consistency and accuracy.<sup>107</sup>

#### 4. *The ISO Quality Control Standards—ISO 9000 Series*

When the ISO turned to the questions of environmental management and auditing systems in 1992, it was profoundly influenced by the ISO's earlier, successful creation of quality control standards known as the ISO 9000 series. ISO 9000 represented a departure from conventional ISO work products in two ways. First, ISO 9000 was the first international standard that did not simply harmonize existing, uniform national standards.<sup>108</sup> Second, the standards were applicable to a wide range of industries and services, rather than to a specific product, process, or plant.

The ISO 9000 quality control standards, published in 1987, contain guidelines for companies to use both in their own implementation of a quality assurance system<sup>109</sup> and in specifying contract requirements for suppliers and subcontractors.<sup>110</sup> The explicit goal was to harmonize quality assurance requirements to facilitate international trade.<sup>111</sup> Several provisions of ISO 9000 pointed the way towards more specific environmental management standards.

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*id.* at 20, while the Dutch eco-label, although administered by a non-governmental foundation, is financed by the government. *Id.* at 21. The Singapore Green Labelling Scheme is administered by the Ministry of the Environment, *id.* at 36, and the Japanese Eco-Mark Program operates under the guidance of the National Environment Agency. *Id.* at 34.

105. The "Energy Star" program, discussed *supra* note 27, is a rare exception to this U.S. rule.

106. DAVIS, *supra* note 103, at 38-40.

107. See generally George Richards, *Environmental Labeling of Consumer Products: The Need for International Harmonization of Standards Governing Third-Party Certification Programs*, 7 GEO. INT'L ENVTL. L. REV. 235 (1994).

108. The ISO drew largely from a British quality system standard, BS 5750, in drafting ISO 9000. PERRY L. JOHNSON, *ISO 9000: MEETING THE NEW INTERNATIONAL STANDARDS* 16 (1993).

109. The ISO 9004 Quality Management Guidelines provide guidance for a firm wishing to use an ISO 9000 quality system for its inherent benefits, but not necessarily for certification. *Id.* at 33.

110. ISO 9001, 9002, and 9003 are the three contractual quality system models applicable to firms which seek ISO 9000 registration for legal or contractual purposes. *Id.* at 32-33.

111. *Id.* at 6.

ISO 9004 declares that "in order to be successful, a company must offer products or services that . . . comply with statutory (and other) requirements of society."<sup>112</sup> These are "[o]bligations resulting from laws, regulations, rule, codes, statutes and other considerations . . . [i]ncluding notably protection of the environment, health, safety, security, conservation of energy and natural resources."<sup>113</sup> Furthermore, the standard requires analysis of "all phases in the life cycle of a product and processes, from initial identification of market needs to final satisfaction of requirements," including product design, production, packaging, storage, and disposal or recycling at the end of useful product life.<sup>114</sup> It provides for an internal audit of quality systems and periodic independent evaluation.<sup>115</sup> Both the life-cycle assessment and internal audit/independent evaluation approaches to quality have been incorporated into the ISO's current environmental standard-setting. Thus, when industry encountered these concepts in an environmental context, they were already familiar from the quality control setting.

The quality control standard also portended the possibilities and dangers ahead. The ISO 9000 series quickly became a de facto requirement for doing business in Europe and other parts of the world. Companies required proof through an independent, registered "certifier" that their suppliers and subcontractors complied with the standard.<sup>116</sup> ISO certification was required for certain "regulated products" covered by EC directives.<sup>117</sup> In the U.S., the National Aeronautics and Space Administration, the Food and Drug Administration, and the Defense Department began harmonizing their quality requirements with those of ISO 9000.<sup>118</sup>

The expanding use of the standard was worrisome to U.S.-based corporations which had a much lower rate of ISO 9000 registration than European corporations.<sup>119</sup> The difficulties arose in part because no accredited independent certifier was based in the U.S, and in part

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112. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, QUALITY MANAGEMENT AND QUALITY SYSTEM ELEMENTS — PART 1: GUIDELINES, ISO 9004-1, art. 0.1 (1994).

113. *Id.* at art. 3.3.

114. *Id.* at art 5.1.1.

115. *Id.* at arts. 5.4, 5.5.

116. *See* JOHNSON, *supra* note 108, at 8-9.

117. *Id.* at 9.

118. Charles W. Thurston, *Quality is a Global Affair: Worldwide Adoption of International Organization for Standardization Program, Quality '94*, 246 CHEMICAL MARKETING REP., Oct. 31, 1994, at SR10.

119. North American companies, according to a 1993 survey by Mobil Oil, accounted for only 4.7% of all certifications to the standard. British companies accounted for 62.5%, other European companies for another 21.5%, and those from Australia and New Zealand represented 7.1% of all certifications. *Id.* at SR14. A 1994 study noted that of the more than 50,000 ISO 9000 certificates issued worldwide, only some 4,000 were issued to compa-



because the EC would only accept its own certifiers.<sup>120</sup> Some looked at the ISO standard, and especially the requirement for outside certification, as a non-tariff trade barrier designed to favor European industry.<sup>121</sup> Others resented what they perceived as a European bias to the standard. These concerns, and a heightened awareness of the power of standards to influence market behavior, have colored the subsequent process of designing the ISO 14000 series environmental standards.

##### 5. *ISO's Response to the 1992 U.N. Conference on the Environment and Development*

Preparations for the 1992 U.N. Conference on Environment and Development (UNCED) provided the impetus for action. Various UNCED Preparatory Committee documents referred to the need for international standards.<sup>122</sup> In response, the ISO and the International Electrotechnical Commission established an ad hoc Strategic Advisory Group on Environment (SAGE). According to its founders, SAGE's key objective was to

. . . assess the needs for future international standardization work to promote world-wide application of the key elements embodied in the concept of sustainable industrial development, including but not limited to consumer information and eco-labelling; the use and transport of resources, in particular raw materials and energy; and environmen-

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nies in the United States. *SunService Announces Registration to ISO 9001 Standard*, BUS. WIRE, April 24, 1995, available in LEXIS, Nexis Library, BWIRE File.

120. See JOHNSON, *supra* note 108, at 147. Part of the problem is that the U.S. government, unlike European governments, has no official accreditation for ISO 9000 registrars, so that companies in other countries are less willing to accept U.S.-based certifications. The National Institute of Standards and Technology is in the process of developing an official accreditation process which would meet at least the requirements for "regulated trade." In addition, ISO itself has formed a group to develop a single, globally-recognized registration system. Thurston, *supra* note 118, at SR14.

121. See Stanley A. Marash, *The Future of ISO 9000*, CORP. BOARD, May 1994, at 20, available in LEXIS, News Library, MAGS File.

122. For example, ISO saw itself responding to a concern expressed in an UNCTAD report on trade and the environment, which stated, "[t]here is a need for more information and transparency regarding trade measures related to the environment. The GATT Agreement on Technical Barriers to Trade requires parties to use international standards, when they exist, as a basis for their technical regulations. Environmental concerns can be expected to generate a growing number of such regulations: the establishment of international standards for environmental protection is thus a matter of some urgency and could help avoid misuse of these regulations." *Report of the Secretary-General of UNCTAD subcommittee to the Secretary-General of the Conference pursuant to General Assembly resolution 45/210*, Preparatory Committee for the United Nations Conference on Environment and Development, Plenary Sess., Agenda Item 2B, at 16, U.N. Doc. A/CONF. 151/PC/48 (1991). Thus, from the beginning, ISO officials were aware of the importance of standardization for trade, and saw their work within that context.

tal effects during production, distribution, use of products, disposal and recycling.<sup>123</sup>

SAGE established seven sub-groups to address the following topics: (1) environmental management systems, (2) environmental auditing, (3) labelling, (4) standards for environmental performance evaluation, (5) life cycle analysis, (6) environmental aspects in product standards, and (7) industry mobilization planning.<sup>124</sup> Each sub-group developed general guidelines and specific recommendations.<sup>125</sup>

By 1992, the confluence of the events discussed above had made a global environmental standard seem necessary and feasible. The proposal that emerged followed the ISO 9000 management process approach: it incorporated many of the features of the earlier codes of conduct and the regional and national environmental management standards, while proposing an international standard without uniform national standards in each country to harmonize.

### III

#### THE DEVELOPMENT OF ENVIRONMENTAL STANDARDS WITHIN ISO

##### A. *Technical Committee 207*

The October 1992 SAGE meeting recommended the establishment of a formal TC, to be known as TC 207.<sup>126</sup> The work being done by the European standard-setting body, CEN, imparted a sense of urgency to the process; at a minimum, ISO environmental auditing and management standards needed to be in place by the end of 1994 before EC regulations on the same subjects would become effective.<sup>127</sup> In response, the ISO agreed to an unusually quick process, as well as to shortening the approval time on any draft standard from six months to three months.<sup>128</sup>

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123. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/COUNCIL 1992 AGENDA ITEM 6.7, ISO/IEC STRATEGIC ADVISORY GROUP ON ENVIRONMENT (SAGE), Annex 1, at 2 (1992) (on file with author).

124. *Id.* at 3.

125. While these specifics will be discussed below, it is interesting to note that even at this early stage, conflict developed between the U.S. and European bodies. The environmental management subgroups relied heavily on an existing British environmental management standard (BS7750), while the auditing sub-group used a proposed EC regulation, the EMAS. This led to protests from the United States standards body that SAGE was exceeding its mandate, and that any actual standard-writing should be done only within the not-yet-created Technical Committee (TC) structure, which would ensure a "proper system of due process and consensus." Hunter, *supra* note 60, at 188. These comments presaged future U.S.-Europe disputes.

126. *Id.* at 186. Cascio, *supra* note 31, at 45.

127. *See infra* note 129.

128. Samantha Swiss, *Which Piper to Follow? Diverse Environmental Management Standards Cause Confusion*, ENVIRONMENTRISK, Mar. 1993, at 16.

TC 207, once constituted, divided into subcommittees to prepare drafts. The subcommittees constitute two functional groups: those focused on production processes, and those focused on products themselves. The first is composed of the subcommittees on environmental management systems (EMS), environmental auditing (EA), and environmental performance evaluation (EPE). This group has been the most active, in part because of pressure to come up with a standard before the above-mentioned European environmental management and auditing regulation (EMAS) became effective in April 1995.<sup>129</sup> The second group involves the subcommittees on environmental labelling, life-cycle analysis, and environmental aspects of product standards.<sup>130</sup> This second group is on a slower schedule. The concepts involved are more hotly debated within each national delegation to ISO and among the different delegations, and disputes tend to break down less neatly along regional lines in the second group.

1. *The EMS, EA, and EPE Producer-Focused Subgroups*

a. *The Environmental Management Systems Subgroup*

The EMS specification standard is the heart of the ISO standards. Organizations will be certified to the EMS, while the draft standards in other areas will be merely guidance documents amplifying or supporting the EMS standard.<sup>131</sup> The standard “requires an organization to formulate a policy and objectives taking into account legislative requirements and information about significant environmental impacts.”<sup>132</sup> The EMS shall consist of a stated environmental policy defined by top business management<sup>133</sup> and a “procedure to identify the environmental aspects of its activities, products, and services that it can control and over which it can be expected to have an influence, in order to . . . ensure that these impacts are considered in setting its environmental objectives.”<sup>134</sup> The organization must then define en-

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129. EMAS, *supra* note 66, at art. 21. The EMAS did in fact go into effect in April 1995.

130. For a list of the subcommittees, see Cascio, *supra* note 31, at 46.

131. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14001 (SC1/WG1 N47), EMS SPECIFICATIONS DOCUMENT (PLUS ANNEX) (REVISED) 2, Feb. 1995 [hereinafter EMS FEBRUARY DRAFT]. The EMS draft standard states: “[t]here is an important distinction between this specification which describes the core elements for certification/registration and/or self-declaration of an organization’s environmental management system and a non-certifiable guideline intended to provide generic assistance to an organization for implementing environmental management.” *Id.* This is an informal version of a “Committee Draft” produced at a February 2-3, 1995, meeting in San Francisco, California. As noted, this is a draft only, and the final language may be different. Nonetheless, it is indicative of the general scope of the committee’s thinking.

132. *Id.* at 3. The obligation to take into account legislative requirements was added during the course of the drafting negotiations.

133. *Id.* at 1-2.

134. *Id.* at 7.

vironmental objectives, specific targets, and a management program.<sup>135</sup> The management shall designate responsibility for achieving targets, and set the resource allocations and timeframes for both new and existing activities.<sup>136</sup> Management is to provide human and financial resources essential to implementation, periodic monitoring, and corrective or preventive action in cases of nonconformance.<sup>137</sup> The organization must also periodically audit its EMS performance, and top management must review the system's suitability and effectiveness.<sup>138</sup>

Several issues proved highly controversial during negotiation of the EMS standard. Many of them originated in differences in legal culture and norms between Europe and the United States. In Europe, discovery rules are more protective,<sup>139</sup> and the threat of large-scale liability or criminal prosecutions is more remote.<sup>140</sup> While regulatory compliance and potential liability drive the move towards environmental management and auditing standards in the U.S., demonstrating to the public that a company is "green" and taking its environmental responsibilities seriously is a primary motivation for establishing environmental auditing standards in Europe.<sup>141</sup> In these debates, the U.S. position was generally to seek less substantive, more procedural, and more flexible positions that preserved management prerogatives and corporate secrecy.<sup>142</sup> Countries that worried about trade-restrictive effects of substantive standards tended to support this position. For the most part, the U.S. positions prevailed, as reflected in the draft standard.

A major source of disagreement between European and non-European delegations was the extent to which the standard would require substantive improvements in environmental performance. European representatives wished to ensure that compliance with the

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135. *Id.* at 7-8.

136. *Id.*

137. *Id.* at 8-12.

138. *Id.* at 12-13.

139. See, e.g., Elli Louka, *Bringing Polluters Before Transnational Courts: Why Industry Should Demand Strict and Unlimited Liability for the Transnational Movements of Hazardous and Radioactive Wastes*, 22 *DENV. J. INT'L L. & POL'Y* 63, 94 (1993); see also Peter Roorda, *The Internationalization of the Practice of Law*, 28 *WAKE FOREST L. REV.* 141, 150 (1993).

140. Linda Spedding, *Environmental Auditing and International Standards*, 3 *RECIEL* 14, 15 (1994). See also *Interview*, 18 *Int'l Env't Rep. (BNA)* No. 18, at 555, 556 (July 12, 1995) (interview of Joe Cascio, head of American delegation to TC 207 meeting in Oslo, and Dick Hortensius, chief negotiator of the Dutch delegation) [hereinafter *Cascio & Hortensius Interview*].

141. Spedding, *supra* note 140, at 15.

142. Some of these debates are described below. For a general discussion of the United States' position in the ISO 14000 debates, see *ISO 14001 Standard on its Way*, *QUALITY SYSTEMS UPDATE*, SPECIAL REP., July 1995, at SR-1, SR-5.

ISO standard would also constitute compliance with the EMAS regulation.<sup>143</sup> In addition to requiring continual improvement, the EMAS regulation lists areas for mandatory evaluation and improvement, including energy, water, and resource use; waste avoidance; recycling; reuse; transport and disposal; selection of new production processes and changes to existing ones; product planning; and the environmental performance and practices of contractors, subcontractors, and suppliers.<sup>144</sup> The U.S. and other participants objected to a fixed set of mandatory improvements, preferring a flexible, management-defined approach.<sup>145</sup>

On the other hand, the U.S. delegation was responsible for inserting language requiring efforts at “pollution prevention” of all organizations seeking certification. While this could be seen as a positive step in that it goes beyond compliance with existing laws, the definition of what constitutes pollution prevention is vague and so broad as to be minimally useful. Indeed, at the July 1995 SC meeting the definition of pollution prevention was modified: it now includes processes to *control* pollution, which may include recycling, *treatment*, and others.<sup>146</sup> It is arguable that neither simple pollution control nor after-the-fact treatment should be considered as part of pollution prevention; pollution prevention should focus on changes in processes, practices, and materials to avoid having to control or treat pollutants at all.

As it now stands, the EMS standard makes clear that it “does not establish absolute requirements for environmental performance beyond commitment, in the policy, to compliance with applicable legislation and regulation and to continual improvement.”<sup>147</sup> An annex elaborates: “the rate and extent of [continual improvement] will be determined by the organization in the light of economic and other circumstances. . . . The establishment and operation of an environmental management system will not, in itself, necessarily result in an immediate reduction of adverse environmental impact.”<sup>148</sup>

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143. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, TECHNICAL COMMITTEE 207, INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS, UPDATE 1 (May 1994) (on file with author). See also *Cascio & Hortensius Interview*, *supra* note 140, at 555.

144. EMAS, *supra* note 66, at art. 3.

145. ISO 14001 Standard on its Way, *supra* note 142, at SR-1, SR-5.

146. MCKIEL, *supra* note 23, at A1-1.

147. EMS FEBRUARY DRAFT, *supra* note 131, at 2. One question that arose early was the meaning of “continual improvement.” Participants worried that minimum rates of emissions or toxics-reduction might be implied. However, the current draft specifies that the term merely means the “[p]rocess of enhancing the environmental management system, with the purpose of achieving improvements in overall environmental performance, not necessarily in all areas of activity simultaneously, resulting from continuous efforts to improve in line with an organization’s environmental policy.” *Id.* at 4.

148. *Id.* at 14.

Another debate concerned the extent to which the standard would require a specific level of pollution control technology. At one point some European representatives pressed for a standard of "viable and achievable best available technology."<sup>149</sup> While such a standard may have little practical effect in Europe, where it would be largely unenforceable and add little to existing national laws, the U.S. participants worried that in the U.S. it would change substantive legal requirements and could result in enormous civil and/or criminal liability.<sup>150</sup> As a result, the standard merely provides that "the environmental management system should encourage organizations to consider implementation of best available technology where appropriate and where economically viable. In addition, the cost-effectiveness of such technology should be fully taken into account."<sup>151</sup> It also specifies that the standard "must not be used to . . . increase or change an organization's legal obligations."<sup>152</sup>

A third area where differences in U.S. and European legal culture produced debate on a proposed EMS standard concerned requirements for evaluation of environmental impacts and compliance with local laws. The British standard that served as a model for the ISO draft, BS 7750, contained a requirement for an "environmental effects register."<sup>153</sup> Under the BS 7750 standard, organizations must establish and maintain a register of significant direct and indirect environmental effects of activities, products and services.<sup>154</sup> While the purpose of an environmental effects register is to identify areas for improvement, U.S. corporations worried that, in the U.S. legal and regulatory climate, a document listing detrimental environmental impacts of corporate activity could be requisitioned by regulators or discovered in litigation, with disastrous consequences.<sup>155</sup> The draft ISO standard thus contains no mention of an environmental register, only references to a "procedure to identify the environmental aspects of its

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149. Telephone Interview with Christopher Bell, Partner, Sidley & Austin, and Member of TC 207 (Apr. 7, 1994).

150. See Cascio & Hortensius Interview, *supra* note 140, at 556.

151. EMS FEBRUARY DRAFT, *supra* note 131, at 2.

152. *Id.* at 1.

153. BRITISH STANDARDS INSTITUTION, SPECIFICATIONS FOR ENVIRONMENTAL MANAGEMENT SYSTEMS, BS 7750:1994, art. 4.4.2 (1994).

154. The register was to include, as appropriate, air and water emissions, wastes, land contamination, use of land, water, fuels and energy and other natural resources, noise, visual impact, and effects on specific ecosystems arising from both normal operations and accidents, and such information regarding future planned activities. *Id.*

155. Telephone Interview with Christopher Bell, *supra* note 149. Similar concerns were raised about requiring an audit verifying compliance with local laws. See *Committee Draft on Management Standards Addresses Pollution Avoidance, Compliance*, 18 Int'l Env't Rep. (BNA) No. 5, at 175 (Joe Cascio, head of U.S. TAG, says some U.S. industry representatives were concerned that compliance audits might become public and be used for enforcement purposes).

activities, products and services that it can control and over which it can be expected to have an influence.”<sup>156</sup>

Furthermore, the procedure, and its results, need not be made public. The U.S. argued that requiring environmental policies and objectives to be publicly available would discourage companies from setting ambitious, meaningful objectives rather than listing vague platitudes.<sup>157</sup> European representatives, on the other hand, more accustomed to public disclosure of corporate data with few consequences, argued that credibility depended on making at least basic information publicly available.<sup>158</sup> The draft standard requires the organization’s environmental policies to be publicly available, but on the more important issue of publication of its environmental impacts, it requires only that “the organization shall consider processes for external communication on significant environmental aspects and record its decision.”<sup>159</sup>

*b. The Environmental Auditing Subcommittee*

A separate set of concerns revolves around environmental auditing. The environmental auditing subcommittee is drafting standards in the areas of general audit principles, EMS audits, auditor qualifications, compliance audits, and environmental statement audits.<sup>160</sup> As of March 1995, the subcommittee has completed draft standards on the first three areas.<sup>161</sup> These standards set out procedures to be followed, but leave the substance of audits to be defined by the client

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156. EMS FEBRUARY DRAFT, *supra* note 131, at 7.

157. See Christopher L. Bell & James L. Connaughton, *New Global Standards May Guide Industry on Environmental Issues*, NAT’L L.J., Sept. 6, 1993, at S2, S3.

158. See Caroline London & Brizay London, *Disclosure Obligations and Due Diligence Practices in Europe*, C764 A.L.I.-A.B.A. 667, 670-71 (1992), available in WESTLAW, A.L.I.-A.B.A. Database (discussing EC Directive of June 7, 1990, requiring freedom of access to information on the environment). Also, Article 5 of EMAS requires a published environmental statement, including a summary of data on emissions, wastes, consumption of raw materials and energy, and other factors. EMAS, *supra* note 66, at art. 5.

159. EMS FEBRUARY DRAFT, *supra* note 131, at 9.

160. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, TECHNICAL COMMITTEE 207, INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS, UPDATE 3 (Apr. 1994) (on file with author).

161. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14010/2 (SC2 N63), GUIDELINES FOR ENVIRONMENTAL AUDITING — GENERAL PRINCIPLES OF ENVIRONMENTAL AUDITING 1 (Feb. 1995); INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14011/1-2 (SC2 N64), GUIDELINES FOR ENVIRONMENTAL AUDITING — AUDITING PROCEDURES — PART 1: AUDITING OF ENVIRONMENTAL MANAGEMENT SYSTEMS 1 (Feb. 1995); INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14012/2 (SC2 N65), GUIDELINES FOR ENVIRONMENTAL AUDITING — QUALIFICATION CRITERIA FOR ENVIRONMENTAL AUDITORS 1 (Feb. 1995) (all on file with author).

and auditor.<sup>162</sup> By far the most controversial substantive issues have concerned whether audits must be conducted by external auditors, and whether the results must be published. Most European negotiators favored external, third-party audits.<sup>163</sup> They reasoned that a system of outside, independent verification was consistent with, and could easily be combined with, existing quality control certifications under ISO 9000. It also would allow the standard to conform to the European EMAS voluntary auditing scheme, which includes use of an "independent accredited environmental verifier."<sup>164</sup> In addition, the Europeans tended to favor public disclosure of audit results, largely because EMAS requires public release of environmental audit statements.<sup>165</sup> Other delegations, led by the U.S., found the costs of third-party verification excessive and often unnecessary,<sup>166</sup> especially after the quality control experience where verifiers had to be hired from Europe.<sup>167</sup> They also worried that public disclosure would have legal consequences in the U.S. that were unlikely in Europe.<sup>168</sup> Moreover, some members of the U.S. delegation raised concerns that the lack of international experience with environmental audits, especially EMS audits, meant the standard was leaping too far ahead of actual practice, and should therefore be framed in less specific terms.<sup>169</sup>

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162. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14010/2 (SC2 N63), *supra* note 161, at 3-4.

163. Telephone Interviews with U.S. TAG participants (May 1994).

164. EMAS, *supra* note 66, at art. 4.3.

165. Disclosure is to include "a summary of the figures on pollutant emissions, waste generation, consumption of raw material, energy and water, noise, and other significant environmental aspects, as appropriate." *Id.*, at art. 5.3.

166. By one estimate, third-party certification had added 20% to the cost of registration with the ISO 9000 standard. Cascio, *supra* note 31, at 45.

167. See *supra* notes 119-21 and accompanying text.

168. In addition to the worries regarding discovery and enforcement described *supra* notes 139 and 140, the U.S. position regarding disclosure dovetailed with states' efforts to shield the results of voluntary environmental audits from public and regulatory scrutiny. Seven states have enacted legislation creating a broad "self-evaluative" privilege for anything termed an audit report, while 21 others have legislation pending. *More States Adopt Audit Privilege Laws; EPA Calls Federal Legislation Ill-Advised*, 25 Env't Rep. (BNA) No. 44, at 2186 (Mar. 10, 1995). A proposed federal "Environmental Audit Protection Act" would allow any document labeled an "environmental audit report" or its supporting documentation to be kept confidential. The theory is that if regulators or the public could obtain information contained in an audit that was not required under the law, the thoroughness of the audit would suffer. Opponents respond that unscrupulous corporations will be able to cover almost anything, including evidence of legal violations, under the rubric of an "environmental audit report." For a fuller discussion, see David Ronald, *The Case Against an Environmental Audit Privilege*, 29 CHEMICAL WASTE LITIG. REP. 167 (1995); *No Audit Privilege in Interim EPA Policy; Lack of Prosecution, Punitive Fines Possible*, 25 Env't Rep. (BNA) No. 48, at 2411 (Apr. 7, 1995).

169. See SIDLEY & AUSTIN, DRAFT U.S. POSITION ON ISO/CD 14015/2 GUIDELINES FOR ENVIRONMENTAL AUDITING — PART 2: AUDITING OF ENVIRONMENTAL MANAGEMENT SYSTEMS 2-3 (July 1994) (on file with author). As of March 1995, the final distribu-



c. *The Environmental Performance Evaluation Subcommittee*

The subcommittee on environmental performance evaluation (EPE) has confronted similar issues. EPE is a "process to measure, analyze, assess, and describe an organisation's environmental performance against agreed criteria for appropriate management purposes."<sup>170</sup> It defines a system for measurement and reporting of performance improvements such as units of measurement and base time periods.<sup>171</sup> Unlike the other subcommittees, the EPE group had no national or regional models to use as a starting point. Consequently, their work is not expected to be completed until 1998.<sup>172</sup>

Originally, the subcommittee divided into working groups on generic and sector-specific EPE. The Europeans, especially the Norwegians, pushed for a standard that would specify, for different industrial sectors, maximum allowable emissions of key pollutants.<sup>173</sup> They also wanted the results made public.<sup>174</sup> Others, including the U.S., considered the effort too ambitious and too fraught with difficulties stemming from regional and local variation. They wanted more general criteria, to be used primarily as internal evaluation tools.<sup>175</sup> The U.S. position seems to have prevailed: as of April, 1994, development of industrial sector indicators was abandoned, and the EPE reconfigured into working groups on management systems and operational systems.<sup>176</sup>

d. *The Dilemmas of Harmonization*

The influence of differing regulatory climates and schemes has been a constant source of tension in the EMS, EPE, and auditing standard-setting groups. The goal is to develop standards that apply to different sizes and types of organizations globally.<sup>177</sup> However, if the cost of such a goal is to create a global standard that falls too far be-

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tion of contents within each EA sub-document was still under discussion. Telephone Interview with Bud Smith, Chairman U.S. Environmental Auditing sub-TAG (Mar. 1995).

170. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC4 N57), ENVIRONMENTAL PERFORMANCE EVALUATION, FRAMEWORK DOCUMENT ON DEFINITIONS, PRINCIPLES AND METHODOLOGY 1 (May 1994).

171. Interview with John Master, Chairman U.S. EPE Sub-TAG (June 1994).

172. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, TECHNICAL COMMITTEE 207, INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS, UPDATE 5 (Apr. 1994) (on file with author).

173. See Bell & Connaughton, *supra* note 157, at S4.

174. *Id.*

175. *Id.*

176. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, TECHNICAL COMMITTEE 207, INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS, UPDATE 4 (Apr. 1994) (on file with author).

177. The EMS draft states that it has been "written to be applicable to all types and sizes of organization and to accommodate diverse geographical, cultural and social conditions." EMS FEBRUARY DRAFT, *supra* note 131, at 1.

low that existing (or contemplated) in a given country or region, countries will ignore or challenge the global standard, and the harmonization and trade-facilitating purpose of the standards will be lost.

Rather than include more, or more stringent, substantive provisions in the standards themselves, the strategy to date has been to leave specification standards as general as possible, and to include any more specific material in a non-binding annex. For example, many of the provisions intended to conform the current draft EMS standard with EMAS have been placed in an annex.<sup>178</sup> However, where EMAS makes certain provisions mandatory, the ISO draft annex leaves them to the discretion of the organization.<sup>179</sup> While this strategy creates a more flexible standard, it also means the global standard serves only as a floor, thus compromising the goal of harmonization. Moreover, while the ISO 14000 standards are ostensibly being developed to dovetail with the EMAS such that companies can comply with both, another possible outcome is that the two voluntary programs will become competitors in Europe, with companies preferring the less stringent ISO requirements over those of EMAS.

## 2. *The Life-Cycle Assessment and Eco-Labeling Product-Focused Subcommittees*

This cluster of subcommittees focuses on products rather than production processes. Unlike the first three process-oriented subgroups, the differences that arose in life-cycle assessment (LCA) and eco-labelling areas (the product-oriented subgroups) were not primarily between the U.S. and Europe. Rather, as discussed below, debates both within and between each national group revolved around the degree of scientific uncertainty underlying the life-cycle assessment approach, and the needs of different kinds of eco-labelling programs.

### a. *The Life-Cycle Assessment Subgroup*

The LCA tries to evaluate and quantify the environmental impacts of a product from inception to disposal.<sup>180</sup> According to the U.S. EPA, it consists of three steps: inventory analysis, impact analy-

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178. *Id.* at 14.

179. For example, the annex leaves it up to each organization to decide whether an environmental management system audit will be performed by personnel from within the organization or by external persons selected by the organization. *Id.* at 21. Under the heading of "Communications," the annex suggests that "in some circumstances responses to interested parties' concerns may include relevant information about the environmental impacts associated with the organization's operations," *id.* at 19, thus allowing for, but not requiring, the public disclosure specified in the EMAS. See discussion *supra* note 158.

180. B.W. VIGON ET AL., U.S. EPA, EPA/600/R-92/245, LIFE-CYCLE ASSESSMENT: INVENTORY GUIDELINES AND PRINCIPLES 98-99 (Feb. 1993).

sis, and improvement analysis.<sup>181</sup> There is some emerging consensus as to the first step of LCA, which is to identify and quantify resource use and environmental releases in common units and using a common data-gathering methodology.<sup>182</sup> However, a common approach to using such an inventory to evaluate overall environmental effects is still in its infancy; as of April 1995, there is no generally accepted methodology. Especially problematic is the valuation of different types of impacts in relation to each other, which depends in large part on social and cultural values and preferences.<sup>183</sup>

The ISO LCA subgroup will focus on harmonizing inventory analysis methodologies, but will inevitably confront the policy choices inherent even in this first step. Although the ISO has established working groups within the LCA subcommittee to address impact analysis and improvement analysis as well, they are nowhere near agreement on a standard.

The policy aspects of LCA become more salient in an international context because of differing environmental contexts and levels of development. The first key issue is deciding which categories of impacts to inventory. Should water use, for example, be a separate category? In arid areas, water use and conservation may be a salient characteristic for life-cycle assessment, whereas in a relatively wet area it might be unimportant. Another problem is determining which impacts to stress: for example, a standard that favors recycled paper over farmed pulp may be appropriate for a densely populated, technologically-advanced society. However, in an agricultural country with abundant land and less ability to manage the toxic wastes that result from the recycling process, pulp farming may be more ecologically sound overall. Other issues include categorization of emissions and

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181. *Id.* at 2. Some practitioners add a fourth step: the scoping and goal definition, or "initiation" step. *Id.*

182. DAVIS, *supra* note 103, at 3-4.

183. *Id.* at 4-6. LCA has to date proven quite sensitive to small changes in assumptions and categories of analysis. For example, LCA studies on the relative impacts of different bottling methods, or of cloth versus disposable diapers, have come to differing conclusions. *See, e.g.,* Peter S. Menell, *Eco-Information Policy: A Comparative Institutional Perspective*, John M. Olin Program in Law and Economics Working Paper No. 104, at 34-36 (Apr. 1993). Menell describes how two studies (commissioned by the diaper services industry and the disposable diaper makers respectively) came to dramatically different numbers in estimating such variables as the water consumption of cloth diaper services. While both considered a similar range of impacts, they reached different conclusions on many of them. Neither study considered several indirect impacts, for example the use of pesticides in growing cotton. This points up a methodological issue in impact assessment: deciding how far along a chain of impacts to extend the analysis. Should one, for instance, consider the potential environmental effects of making the machines that are used to make the product at issue? In addition, effects such as habitat modification, thermal pollution, and noise pollution are not easily amenable to quantification for inventory purposes. For more on the limits of LCA, see Mary Ann Curran, *Broad-Based Environmental Life-Cycle Assessment*, 27 ENVTL. SCI. & TECH. 430, 433-35 (1993).

choice of units (e.g., absolute, or relative to a threshold of potential harm).

Another set of issues revolves around the uses of LCA analysis. These areas overlap with those raised by the subcommittee on environmental labelling. The subcommittee had to define the relationship between LCA and labelling early on. LCA may be used both for making internal product design and production decisions, or as a basis for product labelling (where product labels reveal the impacts of a product, LCA can provide the impact information). Because LCA is expensive and uncertain, existing labelling programs do not require a full LCA. Instead, they call for a less elaborate "streamlined LCA" or life-cycle concept focused on a few selected environmental impacts.<sup>184</sup> The draft statement of "principles of all environmental labelling" recommends the "consideration of the life cycle of a product," but not necessarily of LCA.<sup>185</sup>

*b. The Eco-Labelling Subcommittee*

The labelling subcommittee and its various working groups aim to develop and harmonize methodologies, terms, and principles for the various types of labelling.<sup>186</sup> The subcommittee is not attempting to create a single labelling standard. Rather, it hopes to produce draft goals, principles, and specific guidance documents for the development and operation of the different types of labels.<sup>187</sup>

The eco-labelling subcommittee has divided labels into three groups. Type I labels correspond to third party certification programs which award labels to products that meet a set of criteria regarding the product's overall environmental impact.<sup>188</sup> Generally they are intended to convey environmental superiority.<sup>189</sup> Examples of Type I labels are Green Seal and Green Choice in the U.S. or the Blue Angel

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184. DAVIS, *supra* note 103, at 6.

185. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC3 WG3 N15) PRINCIPLES OF ALL ENVIRONMENTAL LABELING, at 3 (June 1995) [hereinafter DRAFT LABELLING PRINCIPLES]. The June 1994 Guiding Principles/Practices and Criteria for Third-Party Certification Programs states that "environmental labeling should incorporate the product life cycle concept. . . . The elements to be considered in a criteria [sic] will include raw material extraction, production, distribution, use and disposal." INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC3/WG1), GUIDING PRINCIPLES/PRACTICES AND CRITERIA FOR THIRD-PARTY CERTIFICATION PROGRAMS (TYPE I AND III PROGRAMS), INFORMAL COMMITTEE DRAFT, at 6 (June 1994) [hereinafter INFORMAL COMMITTEE DRAFT] (on file with author).

186. INFORMAL COMMITTEE DRAFT, *supra* note 185, at 4.

187. *Id.*

188. *Id.*

189. The stated objectives of environmental labelling include "to encourage the demand for and supply of products which reduce the stress on the environment during their entire life-cycle." *Id.* at 5.

in Germany.<sup>190</sup> Certifiers typically grant Type I labels to only the top 10-15% of products in a given field, hoping that the seal or label will provide such industry leaders with a marketing edge that the rest of the industry will want to emulate.<sup>191</sup> The labels raise difficult questions about tradeoffs among environmental impacts, the potential for national or regional bias, and the danger that technological change will make the label obsolete almost as soon as it is issued.

Type II labels, or “self-declaration claims,” refer to claims by companies that their products have certain environmental attributes, such as how well the product recycles, biodegrades, or composts.<sup>192</sup> In this area, the ISO’s task is more straightforward: specify a single, detailed standard for each such attribute.<sup>193</sup>

A Type III label is defined as a “quantified product information [QPI] label, in which the findings of an independently conducted life-cycle assessment [LCA] are reported under a set of pre-established indices.”<sup>194</sup> According to businesses which offer such labels to certified producers, Type III labels, unlike Type I, are not based on the premise that a certifying or labelling group can legitimately evaluate and make tradeoffs among environmental “goods” and “bads.”<sup>195</sup> Type III labels, much like nutritional labelling, only attempt to give the consumer information on quantifiable impacts in discrete areas, for example, energy use or toxic emissions. “Certified eco-profiles” or

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190. While Green Seal is a private, for-profit firm which charges firms to evaluate their environmental performance and decide whether they merit a seal of approval, Blue Angel and most European eco-labelling schemes are private-public partnerships that include some government participation. DAVIS, *supra* note 103, at 17-26.

191. Interview, Arthur Weissman, Vice-President, Green Seal, April 1994.

192. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC3/WG 2 N33), SELF DECLARATION CLAIMS, WORKING DRAFT, at 3 (June 1994) (on file with author). The draft standard states that “Self Declaration Environmental Claims may be made by manufacturers, importers, distributors, retailers or anyone else likely to benefit commercially from such claims. For example, claims may take the form of statements, symbols or graphics on product or package labels, product literature, technical bulletins, advertising, publicity, telemarketing.” *Id.*

193. The working group is preparing standards on terms and definitions, the use of symbols in environmental marketing, and verification methodologies. *Id.* The draft prohibits general claims of environmental superiority without a life-cycle assessment, *id.* at 8, and provides definitions for “recyclable,” “recycled material,” “recoverable,” “refillable,” “compostable,” “energy-efficient,” “water-efficient,” and “degradable/biodegradable.” *Id.* at 8-17. The Draft also provides criteria for evaluating claims of solid waste reduction, *id.* at 13, and (tentatively) sustainable forestry. *Id.* at 17.

194. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC3/WG1 N13), ENVIRONMENTAL LABELLING — GUIDING PRINCIPLES/PRACTICES OF PRACTITIONER PROGRAMS (TYPE I AND III PROGRAMS), PART 2: ENVIRONMENTAL LABELLING FOR TYPE III PROGRAMS, DRAFT INTERNATIONAL STANDARD 2 (APR. 1994) (on file with author).

195. Interview with Stanley Rhodes, President, Scientific Certification Systems, Oakland, California (June 1994).

“environmental report cards,” based on site-specific evaluation<sup>196</sup> of some dozen factors, are affixed to the product of any company willing to pay for evaluation.<sup>197</sup> According to QPI’s proponents, this type of labelling allows comparisons across as well as within product categories, and it allows consumers to focus on those environmental attributes most important to them.<sup>198</sup> It also, however, poses two potential problems: (1) information overload; and (2) possible consumer confusion when not all products, nor the most environmentally desirable products, bear the “eco-profile” label.<sup>199</sup>

Type I labels have generated the most controversy. Some labels, for example the EC eco-label, are only awarded to companies that meet all EC health, safety and environmental regulations.<sup>200</sup> Many non-European companies and practitioners criticized this requirement as a potential trade barrier.<sup>201</sup> The Draft Principles of Environmental Labelling specifies in part that labels should meet performance objectives, rather than specific national or local regulations and standards.<sup>202</sup> However, the draft recognizes that “there may be some instances in which the trade restrictions against certain products and services are legitimate” without specifying any such instances.<sup>203</sup>

A final source of controversy in the labelling area has been defining the goal of labelling. While professional labelling practitioners from groups like Green Seal, Blue Angel and Scientific Certification Systems (SCS) have stressed environmental improvement through market mechanisms as the goal, most corporate participants have favored an emphasis on simply providing consumers with accurate information.<sup>204</sup> Corporations felt that any environmental improvement had to await consumers’ choices about products, which could be influenced as much by price and product capabilities as by environmental

196. Site-specific evaluations require companies to qualify for the label at each production site or plant rather than aggregating data over all plants. If, for example, a producer has one “model” plant and several older, more polluting ones, the labelling practitioner would have to base certification on the production processes of the worst plant, not the best. *Id.*

197. *Id.* See also Roger D. Wynne, *The Emperor’s New Eco-Logos? A Critical Review of the Scientific Certification Systems Environmental Report Card and the Green Seal Certification Mark Programs*, 14 VA. ENVTL. L.J. 51, 73-83 (1994).

198. Rhodes, *supra* note 195.

199. See criticisms of Type III labels in Wynne, *supra* note 197, at 140-41, regarding information overload.

200. Council Regulation 880/92, *supra* note 70, at art. 4.1.

201. See, e.g., Cascio, *supra* note 31, at 46.

202. DRAFT LABELLING PRINCIPLES, *supra* note 185, at 4.

203. These include items covered by international conventions and treaties, and products which may have a harmful effect on the environment or public health of the country that is imposing the restrictions. *Id.*

204. See, e.g., letter from Christopher L. Bell, Partner, Sidley & Austin, to Gordon Bellen, Chairman of the U.S. subTAG Group on Environmental Labelling 1 (July 8, 1994) (on file with author).

issues.<sup>205</sup> Thus, eco-labelling standards should focus more on “truth-in-advertising” issues than on criteria for environmental superiority. The final standard will probably reflect some compromise between these goals.

#### IV

#### IMPLICATIONS OF THE ISO STANDARDS FOR NATIONAL AND INTERNATIONAL REGULATORY ACTION

The ISO 14000 standards are designed to be voluntary; producers of goods and services will have to choose to sign onto them. Nonetheless, factors such as the confluence of market forces, changes in domestic regulatory strategy, and emerging debates over international trade and the environment make the standards more consequential than their voluntary nature might suggest.

##### *A. The Standards and the Shift to “Pollution Prevention”*

The ISO 14000 standards are coming into effect during a period of flux and reevaluation of environmental regulation in the United States and elsewhere. In the industrialized world, policy makers are shifting from an “end-of-the-pipe” to a “pollution prevention” emphasis, and from command-and-control to market- and information-based strategies.<sup>206</sup> To date, such incentive strategies have tended to be voluntary adjuncts to existing regulatory programs. However, in the next decade they will become increasingly important, and, perhaps, move from voluntary to mandatory status.<sup>207</sup> For example, some form of eco-labelling may become required, just as nutritional labelling is now required in the U.S.<sup>208</sup> As in the European Union, government procurement policies are likely to become increasingly tied to EMS programs and to life-cycle assessments that define what “environmentally preferable” means. Existing international standards in these areas may well become the basis for U.S., European, and Japanese programs. Indeed, officials at Japan’s Ministry of International Trade and Industry have begun reviewing the Japanese industrial standard sys-

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205. *Id.* at 2.

206. *See supra* notes 24-30 and accompanying text.

207. *See* Frederick R. Anderson, *From Voluntary to Regulatory Pollution Prevention, in THE GREENING OF INDUSTRIAL ECOSYSTEMS* 98, 103 (Braden R. Allenby & Deanna J. Richards eds., 1994) (arguing that mandatory pollution prevention requirements are necessary to “level the playing field” among companies engaging in such prevention efforts over time).

208. Nutritional Labeling and Education Act of 1990, Pub. L. No. 101-535, 104 Stat. 2353 (1990) (codified in scattered sections of 21 U.S.C.).

tem as a prelude to making ISO 14000 certification mandatory for companies operating in Japan.<sup>209</sup>

Even if voluntary only, the standards will force greater numbers of people within each company and each industrial plant to consider the environmental effects of their actions and to take environmental factors into account when planning new products or processes. Because the standards have few substantive requirements, such consideration may not lead to changes in industrial design or financial planning, but at least managers and executives will have been exposed to the tradeoffs involved. The timing of the standards is particularly important because it dovetails with the rethinking of "industrial ecology" by engineers and planners.<sup>210</sup> A small but growing number of producers are experimenting with and implementing changes in materials and industrial processes to reduce wastes and raw material inputs.<sup>211</sup> Often, companies can justify such changes because they reduce costs, and increase productivity and efficiency,<sup>212</sup> although as the easy, inexpensive changes are made, the economic incentive to implement further changes diminishes.<sup>213</sup> By forcing producers to systematically consider the environmental effects of current practices, the ISO standards may spur some pollution prevention efforts which would otherwise have gone unnoticed. Nonetheless, due to the vague nature of the requirements, these efforts may be limited to those which result in short-term cost savings, rather than compelling changes in long-term investment strategies or the abandonment of ecologically unsound product lines.

Others may also make use of the existence of standards. Companies might use them as a benchmark for choosing suppliers or contractors, especially in publicity-sensitive industries. Companies may find themselves with little choice about complying if a major competitor is participating. Banks and insurance companies may require corporate clients to implement EMS and auditing systems to reduce their own potential exposure for environmental harms, at least in states where environmental liability is a major risk. They may also require specific

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209. *Japan Agrees to Embrace ISO System of Environmental Supervision Programs*, 17 Int'l Env't Rep. (BNA) No. 21, at 862 (Oct. 19, 1994).

210. Industrial ecology provides a systems perspective on the flow of materials and energy needed to create and produce industrial products. It looks at energy use, material choices, product and process design, material and waste management, market responses, and other factors to design sustainable systems of industrial production. Deanna J. Richards et al., *The Greening of Industrial Ecosystems: Overview and Perspective*, in THE GREENING OF INDUSTRIAL ECOSYSTEMS, *supra* note 207, at 1, 3-11.

211. *Id.*

212. See OFFICE OF TECHNOLOGY ASSESSMENT, U.S. CONGRESS, SERIOUS REDUCTION OF HAZARDOUS WASTE: FOR POLLUTION PREVENTION AND INDUSTRIAL EFFICIENCY, OTA-ITE-317, at 3-6 (Sept. 1986).

213. See Anderson, *supra* note 207, at 101.



environmental insurance in risk-prone industries. The premiums for such insurance may be pegged to environmental performance and insurance may be unavailable in particularly damaging or risky industries.<sup>214</sup> Tort litigants may well turn to compliance with environmental management systems as benchmarks for what was possible, or even customary, in establishing compliance or non-compliance with the standard of care. In the criminal arena, compliance with the standards might influence both state and federal prosecutors enforcing environmental laws and judges applying the federal corporate sentencing guidelines.<sup>215</sup>

More ambitiously, the standards may provide consumers and non-governmental groups with a means to obtain previously unknown information about the impact of corporate practices on the environment. Existing information-based regulatory strategies like the U.S. Toxics Release Inventory (TRI) have proven effective in prodding companies to reduce toxic releases.<sup>216</sup> A voluntary listing of environmental effects might provide information on uses or emissions of substances that currently do not have to be disclosed under U.S. law, such as toxic chemicals not now required to be disclosed under the TRI. If companies were already gathering data on such emissions, the govern-

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214. See Marcia E. Williams, *The Corporate Response to Government Institutional Controls and Information Gathering*, in *TRANSNATIONAL ENVIRONMENTAL LAW AND ITS IMPACT ON CORPORATE BEHAVIOR* 83, 87 (Eric J. Urbani et al. eds., 1994).

215. See Bell & Connaughton, *supra* note 157, at S3. Under 1991 Department of Justice guidelines, the performance of environmental audits, self-policing, and voluntary disclosure of environmental violations are viewed as mitigating factors in the Department's exercise of criminal enforcement discretion. U.S. DEPT' OF JUSTICE, *FACTORS IN DECISIONS ON CRIMINAL PROSECUTIONS FOR ENVIRONMENTAL VIOLATIONS IN THE CONTEXT OF SIGNIFICANT VOLUNTARY COMPLIANCE OR DISCLOSURE EFFORTS BY THE VIOLATOR* (1991). The U.S. sentencing guidelines for federal crimes provide for more lenient penalties if an organization has "an effective program to prevent and detect violations of law." U.S. SENTENCING COMMISSION, *FEDERAL SENTENCING GUIDELINES MANUAL* § 8C2.5(f) (1994). In order to be deemed to have an "effective program to prevent and detect violations of law," an organization must have taken "reasonable steps to achieve compliance with its standards, e.g., by utilizing monitoring and auditing systems reasonably designed to detect criminal conduct by its employees and other agents." *Id.* § 8A1.2 cmt. 3(k)(5).

216. The TRI, 42 U.S.C. § 11023 (1988), is a reporting system established under the Emergency Planning and Community Right-to-Know Act, 42 U.S.C. §§ 11001-11050 (1988), which requires U.S. corporations to report yearly on emissions of about 320 toxic chemicals above a de minimis amount. Frances H. Irwin, *An Integrated Framework for Preventing Pollution and Protecting the Environment*, 22 *ENVTL. L.* 1, 46 (1992). Ken Gieser, director of the Toxics Use Reduction Institute at the University of Massachusetts, has described the TRI as "the government's most successful and least costly instrument for promoting responsible toxic chemical management." *GAO Official Proposes Major TSCA Changes*, *PESTICIDE & TOXIC CHEMICAL NEWS*, July 20, 1994, available in LEXIS, News Library, CURNWS File.

ment could more easily require disclosure of the information, or citizens' groups could demand its release.<sup>217</sup>

On an international level too, ISO standards may prove useful for providing raw data. International environmental law is enforced partially through monitoring of state compliance with treaty obligations. Data obviously facilitates monitoring. For example, state obligations under the Convention on Climate Change include producing an inventory of anthropogenic sources and removals by sinks of greenhouse gases.<sup>218</sup> Fulfilling these obligations could be facilitated by producing an inventory of energy usage. If companies are already compiling (and perhaps publishing) information on energy use as part of their environmental management systems, labelling programs, or life-cycle analyses, this practice facilitates the state's ability to design feasible energy-reduction strategies. The same is true of other international commitments requiring data collection. Information on the environmental impacts of certain products or processes might serve as the basis for their international control or phase-out.

### B. Trade, Environment, and the ISO Standards

The relationship between international trade law and policy and the ISO standards is complex. First, the standards themselves might become barriers to trade. The GATT 1994/WTO agreement that emerged from the Uruguay Round requires that national standards not be created with the intent of, nor have the effect of, creating unnecessary obstacles to international commerce.<sup>219</sup> In addition, any standards must meet the rather restrictive tests of "least trade restrictive" and "necessary" embodied in the Technical Barriers to Trade section of GATT 1994/WTO.<sup>220</sup> The ISO drafters have been quite

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217. For precisely that reason, industry representatives are now attempting to have information generated in the process of conducting an "environmental audit" declared confidential. Under EPA's current audit policy, EPA will not routinely request access to a firm's audits in the course of enforcement activities, but reserves the right to demand access to audits on a case-by-case basis. U.S. EPA, Restatement of Policies Related to Environmental Auditing, 59 Fed. Reg. 38,455 (1994). The current ISO draft environmental audit standards neither require nor forbid publication of audit results by the client, although they do require the auditee's permission where the client and auditee are different. INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207/CD 14011/1-2 (SC1/WG2 N64), *supra* note 161, at 8.

218. Climate Change Convention, *supra* note 4, at art. 4(1)(a).

219. See generally DANIEL C. ESTY, GREENING THE GATT 46-52 (1994).

220. See discussion of the "least trade restrictive" criterion, *supra* notes 81-84 and accompanying text. Up to 1995, GATT dispute resolution panels have interpreted "necessary" quite narrowly, and used these tests to hold health, environmental, and energy regulation inconsistent with GATT. See, e.g., *Thailand—Restrictions on Importation of and Internal Taxes on Cigarettes*, Report of the GATT Dispute Resolution Panel adopted Nov. 7, 1990, in 37 BASIC INSTRUMENTS AND SELECTED DOCUMENTS 200, 223 (1991) (measure is "necessary" only if no alternative, less trade-restrictive measure exists which regu-

conscious of this requirement. Thus, the eco-labelling "principles" document refers explicitly to the need to avoid creating trade barriers by, for example, requiring adherence to any particular set of national or regional laws.<sup>221</sup> Moreover, while many participants from Europe argued that uniform substantive global standards were required to create a "level playing field" for manufacturers and avoid externalization of environmental costs, participants from the United States and other countries rejected the proposal in part based on developing countries' arguments that they would be unable to meet such standards and would end up being squeezed out of global markets.<sup>222</sup>

Second, to the extent that governments wish to depart from the ISO standards on subjects covered by the standard, they will confront a heavy burden of justification under GATT.<sup>223</sup> Thus, if a WTO member implements eco-auditing rules that are more stringent than the ISO rules, it will have the burden of proving that there is a good reason for departing from the ISO rules.<sup>224</sup> To the extent governments wish to regulate in these areas, the least risky course of action will be simply to adopt the ISO standards.

A third, more subtle area of possible application of the standards is that of process and production measures (PPM's). As discussed above, current GATT practice does not allow discrimination among imports based on the process or manner in which they were produced or harvested.<sup>225</sup> Many commentators, myself included, have pointed out that any move toward sustainable development requires the ability to differentiate among goods based on the environmental impacts involved in their production, use, and disposal.<sup>226</sup> Indeed, this premise underlies the whole idea of life-cycle assessment and eco-labelling.

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lating state could reasonably be expected to employ). *See generally* Roht-Arriaza, *supra* note 92.

221. Principle 7 of the Draft Labelling Principles of June 1995 states that: "[p]rocedures and criteria for environmental labels/declarations shall not create unfair trade restrictions nor discriminate in the treatment of domestic and foreign products and services." DRAFT LABELLING PRINCIPLES, *supra* note 185, at 4. Debate over this principle was heated at the June-July meeting of the TC held at Oslo. McKIEL, *supra* note 23, at A2-2. Eventually, the language on non-trade barriers was partially deleted and moved into an annex. The move apparently reflected a lack of consensus as to when trade barriers were legitimate. It is unclear at this time whether the language will eventually become part of the guidance standard. *Id.*

222. *See* Cascio, *supra* note 31, at 47. The validity of this argument is considered below.

223. *See supra* notes 77-84 and discussion.

224. *Id.*

225. *See supra* notes 95-97 and accompanying text.

226. *See* Roht-Arriaza, *supra* note 92, at 73; Candace Stevens, *The Organization for Economic Cooperation and Development and the Re-Emergence of the Trade and Environment Debate*, in *TRADE AND THE ENVIRONMENT: LAW, ECONOMICS AND POLICY* 83, 87 (Durwood Zaelke et al. eds., 1993). In any case, the line between a "product" and a "process" is a tenuous one, based mostly on the ability to discern differing product characteris-

As long as the ISO standards are voluntary and are used by consumers and businesses to inform purchasing decisions without government interference, there should be no issue raised of GATT compatibility.<sup>227</sup> Indeed, this is one of the major advantages of voluntary, private standards: they allow consideration of process-based impacts without running afoul of GATT. However, once a government—or the European Union—incorporates the standards into public regulations governing access to markets, the standards would seem open to challenge because they differentiate among products (or companies) based precisely on process.<sup>228</sup> If the current panel interpretations of GATT stand and if differentiation by process can be shown to have a discriminatory effect on imports, it would be prohibited—at least under current GATT practice.<sup>229</sup> This leads to the conclusion that in order for a scheme like ISO to be fully implementable, changes in current GATT practice regarding the product/process distinction are required.<sup>230</sup>

Eco-labels incorporated into law have already proven problematic under GATT. In 1991, Austria enacted a law requiring labelling of certain kinds of tropical timber, in an effort to use consumer pressure to improve timber harvesting practices.<sup>231</sup> The law required labelling of all tropical timber and created a “quality mark” for timber from sustainable harvesting sources. It also increased import tariffs on tropical timber, and used the resulting revenues to promote sustainable tropical timber harvesting.<sup>232</sup> Malaysia promptly protested the measure under the Technical Barriers to Trade Agreement, argu-

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tics. For example, is recycled newsprint a different product from other newsprint? If it looks or feels different, it might be; otherwise, the distinction might be considered simply one of “process.” The line is unclear.

227. See *Tuna/Dolphin I Panel*, *supra* note 96, at paras. 5.41-5.42. The “tuna-dolphin” decision upheld truth-in-labelling provisions of the U.S. Dolphin Protection Consumer Information Act because the labelling law was voluntary and did not confer a government advantage. *Id.*

228. The line where “voluntary” standards become “mandatory” is not always clear. For instance, in procurement cases, there is no requirement that a company bid for a specific contract; yet if much of its business depends on such bids, it may be able to argue a procurement requirement in effect discriminates, and so is a non-tariff barrier. No GATT dispute panel, to my knowledge, has ever squarely confronted the issue.

229. Roht-Arriaza, *supra* note 92, at 75. There is nothing in the text itself to compel such an interpretation, and a fair amount of evidence the drafters of the agreement intended no such thing. See Steve Charnovitz, *Exploring the Environmental Exceptions in GATT Article XX*, *J. WORLD TRADE*, Oct. 1991, at 37, 53-54.

230. For example, tariffs could be set through the normal processes of tariff setting and binding, using the existing GATT Harmonized System of tariff categories to distinguish between goods based on the different processes involved. Thus, “computer chip, CFC-cleaned” would be a different good than “computer chip, water cleaned.”

231. Chase, *supra* note 88, at 375.

232. *Id.*

ing it was a discriminatory non-tariff barrier.<sup>233</sup> Part of the problem under GATT was that the measure applied only to *tropical* timber, not all timber.<sup>234</sup> Another problem was that there is no internationally agreed-upon definition of “sustainably harvested timber.”<sup>235</sup> No dispute settlement panel was ever convened. In response to Malaysia’s threats to impose sanctions, Austria backed down, rescinding the import tax and agreeing to study the import-certification scheme.<sup>236</sup>

### C. *Eco-Dumping and Countervailing Duties*

The ISO standards may also be applied in domestic anti-dumping law.<sup>237</sup> As a result of increased attention to the debate over trade and the environment, academics, activists, and lawmakers in the U.S. and Europe have proposed that anti-dumping laws be expanded to include the concepts of “social dumping” or “eco-dumping.”<sup>238</sup> A lack of adequate environmental regulation or effective enforcement would be characterized as dumping. Hence the imported goods would be subject to countervailing duties equal to the amount that the exporter was thought to have saved by not having to install appropriate controls. Alternatively, the lack of environmental regulation could be characterized as an indirect subsidy which, if it affects export shares, would also be subject to retaliation.

These proposals, of course, beg the question of what constitutes “adequacy” or “appropriateness.” The tendency will be to define these terms relative to national regulations, inevitably raising suspicions of protectionism, or at least of discrimination against developing-country exports.<sup>239</sup> However, the ISO standards could provide a benchmark based on either the producers or the products themselves.

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233. See *Austrian Industry, Malaysians Angered over Tropical Wood Labeling Requirement*, 15 Int’l Env’t Rep. (BNA), No. 22, at 720 (Nov. 4, 1992).

234. Chase, *supra* note 88, at 375.

235. The Forest Stewardship Council, established in October 1993, is an attempt to set global standards for good forest management and provide accreditation for organizations offering certification schemes for timber. See Richards, *supra* note 107, at 245.

236. Chase, *supra* note 88, at 375.

237. Under the current U.S. anti-dumping law, it is illegal to import articles “at a price substantially less than the actual market value or wholesale price of such articles.” 15 U.S.C. § 72 (1988).

238. See, e.g., International Pollution Deterrence Act of 1991, S. 984, 102d Cong., 1st Sess. (1991), which, had it been adopted, would have authorized countervailing duties based on the additional costs a foreign firm would have to pay to comply with U.S. environmental standards. *Id.* § 3(a). For a discussion of the provisions of NAFTA which allow for combatting “eco-dumping” provisions, see Joel L. Silverman, *The “Giant Sucking Sound” Revisited: A Blueprint to Prevent Pollution Havens by Extending NAFTA’s Unheralded “Eco-Dumping” Provisions to the New World Trade Organization*, 24 GA. J. INT’L & COMP. L. 347 (1994). For a discussion of legislation addressing “social dumping,” see Theresa A. Amato, *Labor Rights Constitutionality: United States Trade Legislation and the International Trade Order*, 65 N.Y.U. L. REV. 79, 83-103 (1990).

239. See ESTY, *supra* note 219, at 156-57, 163-66.

For example, anti-dumping law could establish a rebuttable presumption that the products of firms registered to the ISO standards, or those products awarded a Type I eco-label<sup>240</sup> under any national program that applied the ISO standards, were not dumped. Of course, while an international standard might be less prone to discriminate against developing countries than a purely national one, such a standard might also be biased.<sup>241</sup>

Alternatively, the current ISO standards could be strengthened to serve as the basis of a more far-reaching effort. Under such a scheme, legislation could require publication of environmental impacts under the methodology developed by ISO. Those products causing impacts that exceed a certain level would be subject to countervailing duties in proportion to the amount they exceeded the limit. Of course, minimum levels would have to be set multilaterally to avoid arousing the same suspicions of protectionism mentioned above. Because the ISO has to date been unwilling to set substantive emissions or impact limits, such a scheme is unlikely at this time, but may become more feasible in the future. While it would, as discussed below, require changes in ISO process, in theory at least a 75% vote of ISO's national bodies could approve such standards.<sup>242</sup> Only under such conditions could a compensatory tariff scheme become realistic. Nonetheless, the use of the ISO environmental standards in this manner reveals some of the potential of a producer-centered, trade-enforced model of international environmental protection.

## V

### THE LIMITATIONS OF THE CURRENT ISO STANDARDS

Once approved and disseminated, ISO's group of standards may significantly change the way business, government, and consumers deal with environmental matters. If this potential is to be met, however, both the process by which the standards were developed and the resulting content must be widely viewed as legitimate and effective. The need for legitimacy among a broad range of constituencies is especially vital because both the evaluation of environmental impacts, and the development of standards for acceptable firm behavior, are not neutral technical decisions but policy judgments. Unlike quality standards, which regulate behavior between contracting parties, environment-related standards regulate a firm's behavior towards its neighbors, other species, and entire ecosystems. Since these standards have a significant impact on "non-parties," the legitimacy of both the

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240. See definition *supra* text accompanying note 188.

241. See discussion *infra* notes 272-73 and accompanying text.

242. See *supra* text accompanying note 49.

process through which such standards are “privatized,” and the content of the standards, is vital to ensure widespread acceptance and authoritativeness.

A. *Process-Related Concerns: Who Are the Drafters?*

One set of concerns about the ISO standards relates to the identity of the drafters and the process employed to derive the standards. That process has in practice been dominated, especially within the U.S., by large corporate interests.<sup>243</sup> Large industrial countries have also led the negotiations to the practical exclusion of less-developed countries.<sup>244</sup> These limitations have affected the content of the standards.

Notwithstanding the domination of the drafting process by corporate interests and industrial countries, the ISO does bring together the interests of producers, users (including consumers), governments, and the scientific community.<sup>245</sup> The ISO itself is formally made up of a representative national standards body from each of a large number of member countries.<sup>246</sup> A balance of interests among producers, users, and others within ISO is presumably ensured because each individual national standards organization is required to be the “most representative” organization.<sup>247</sup> The American National Standards Institute (ANSI), for example, the U.S. representative to ISO, has promulgated regulations requiring that the membership of standards committees “be sufficiently diverse to ensure reasonable balance without dominance by a single interest group.”<sup>248</sup> Other internal rules attempt to ensure procedural fairness: during vote casting, all written comments and objections must be considered,<sup>249</sup> and a committee secretariat must assure that proper procedures have been followed.<sup>250</sup>

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243. See *infra* notes 255-61 and accompanying text.

244. See *infra* notes 262-69 and accompanying text.

245. ISO MEMENTO, *supra* note 35, at 1.

246. *Id.*

247. *Id.*

248. AMERICAN NATIONAL STANDARDS INSTITUTE, ANSI PROCEDURES FOR THE DEVELOPMENT AND COORDINATION OF AMERICAN NATIONAL STANDARDS, sec. A.2 (1995) [hereinafter ANSI PROCEDURES]. For a full description of ANSI procedures and how they have worked within the U.S., see Robert W. Hamilton, *The Role of Nongovernmental Standards in the Development of Mandatory Federal Standards Affecting Safety or Health*, 56 TEXAS L. REV. 1329, 1345-68 (1978).

249. ANSI PROCEDURES, *supra* note 248, at sec. 1.2.7. Negative votes may, however, be rejected as “not related” or “not persuasive.” See Hamilton, *supra* note 248, at 1357-58 (describing process of reviewing negative votes by American Society for Testing and Materials (ASTM), a constituent member of ANSI responsible for most U.S. standard-setting). According to Hamilton, at least one consumer representative felt his views were often readily rejected on these grounds. *Id.* at 1358.

250. ANSI PROCEDURES, *supra* note 248, at sec. A.3.3.2(c).

In practice, those who consistently attend meetings, and participate in the actual drafting work, decide the content of the ISO standard. The drafting committees are considerably less representative than the formal TC membership. Small businesses and consumer and environmental groups are under-represented. Another factor militating against widespread participation is the technical nature of many discussions. Representatives of environmental or consumer groups, for example, tend to cover a wider range of subjects in less depth. Hence, they are often disadvantaged during specialized discussions of management and technical assessment areas covered by the standards.<sup>251</sup>

Despite the stated goal of balance, the membership of TC 207 is heavily concentrated in large global industry and industry-related government standard-setting bodies. The chairpersons of the TC subcommittees include representatives of the Merck and Bayer pharmaceutical giants, environmental consulting firms, and national standard-setting institutes.<sup>252</sup> At the work group level where most of the drafting work is done, a significant majority of the sixteen conveners come from corporations or industry federations.<sup>253</sup> At the 1995 meeting of the TC in Oslo, however, a few "Consumer Representative" organizations, as well as the World Wildlife Fund (WWF) and the Environmental Defense Fund (EDF), attended as official Liaison delegations.<sup>254</sup>

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251. These problems seem endemic to voluntary, consensual standard-setting. In a 1978 article on elaboration of U.S. safety and health standards, Professor Robert Hamilton found that the U.S. standard-setting committees suffered from a lack of qualified representatives for some important interests, uneven attendance, and a lack of balance on important working groups. Hamilton, *supra* note 248, at 1352-55. Hamilton expressed concern that standards may have been developed with insufficient participation by consumers, workers, and small businesses, and that certain non-economic interests may have been given inadequate consideration in developing a consensus when most of the participants were representatives of economic interests. *Id.* at 1379-86. Similar concerns apply in an international context.

252. GLOBAL ENVIRONMENTAL MANAGEMENT INITIATIVE (GEMI), ORGANIZATIONAL STRUCTURE OF ISO/TC 207: ENVIRONMENTAL MANAGEMENT AND U.S. PARTICIPATION (1994) (on file with author). This source is a poster-size chart detailing the organization of TC 207.

253. *Id.* In drawing conclusions from this list, one must keep in mind that although participants are delegated by their corporation to participate in the process, they often come from the corporation's environmental compliance unit rather than top management, and it is unclear to what extent they represent the views, and commitment, of the corporation's leadership.

254. See MCKIEL, *supra* note 23, at 2, 7. At some points in the process, inadequate participation by NGO's may be the result of an assessment that the standards will have little substantive impact and so are not worth spending scarce resources to influence. But that result in turn may reflect an earlier lack of NGO input into the decisions on the procedural or substantive content of the standards.



On an international level TC 207 probably has a rough balance among industry representatives, government standard-setters, and environmental consultants/auditors/certifiers.<sup>255</sup> It is more balanced than the Technical Advisory Group (TAG) charged with creating a U.S. position, where roughly half the leadership comes from the chemical industry and heavy chemical users.<sup>256</sup> Only three of the sub-TAG or task group leaders represent non-industrial interests.<sup>257</sup> No consumer or environmental group is a major player on the TAG;<sup>258</sup> although EPA has sent observers to the process, they are also neither active nor consistent participants.<sup>259</sup>

The costs of participation also make representative "balance" more difficult. Members of the TAG are largely self-selected: upon payment of \$250, anyone can request membership.<sup>260</sup> The costs of attending meetings add up: recent international meetings were held in Australia, France, South Africa and Norway. While the intent is to distribute evenly the costs of travel, the result is that only those who can afford to pay thousands of dollars in travel costs may consistently attend meetings. Those tend to be representatives of the global corporations who have the most to lose or gain by how a standard is drafted. The dominance of transnational corporations is magnified by the existence of corporate subsidiaries in a number of participating countries. Thus, the same corporate or industry interests have multiple entry points into the drafting and decision-making process.<sup>261</sup>

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255. See GEMI, *supra* note 252; Cascio, *supra* note 31, at 48.

256. GEMI, *supra* note 252.

257. One of these comes from a standard-setting group which has historically focused on harmonizing state public health regulations; the other two come from competing private eco-labelling concerns. *Id.*

258. GEMI, *supra* note 252. Environmental groups are actively encouraged to become more involved in the TAG. U.S. ENVIRONMENTAL PROTECTION AGENCY, ISO 14000: INTERNATIONAL ENVIRONMENTAL MANAGEMENT STANDARDS 4 (1995).

259. Several EPA staff people are officially members of different subgroups of the U.S. TAG, however interviews and documentation reveal none of them to be actively involved in the actual drafting of standards. Interview with Mary McKiel, Coordinator, EPA Standards Network, in Washington D.C. (Aug. 11, 1995). During 1995 EPA has begun taking more interest in the ISO drafting process. *Id.*

260. AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), APPLICATION FORM, U.S. TECHNICAL ADVISORY GROUP (TAG) TO ISO/TC 207 ON ENVIRONMENTAL MANAGEMENT (1995).

261. The TC leadership is aware of the lack of balance and the price paid in lessened credibility of the final standards, although they see the pro-industry slant of some delegations internationally as balanced by the government- or consultant-heavy bias of others. Cascio, *supra* note 31, at 48. (Cascio is Program Director for Environment, Health, and Safety Standardization of IBM, and head of the U.S. TAG.) In addition, any tendencies of corporate-dominated drafting groups toward lax standards is to some degree mitigated by the professional norms of the environment, health, and safety specialists like Cascio who often represent the corporation. As another example, Joel Charm, head of one of the working groups, is the director of occupational health in the corporate health, safety, and environmental sciences office of Allied Signal. GEMI, *supra* note 252.

While several participants have suggested creating a fund to pay travel costs of non-industry representatives, the TC 207 leadership has to date taken no action on such a proposal, or on other options, such as teleconferencing, that might make meetings more accessible. Further, at this point, any action would be too late to affect the several drafts that are nearly complete.

In addition to the predominance of transnational corporate interests, another potential source of lessened legitimacy is the predominance of delegations from large industrial countries. The Europeans are particularly well-represented. Although in practice, many European nations share the legal environment of the EU,<sup>262</sup> each national standard-setting group has its own vote.<sup>263</sup> Thus, for European industry, the ISO forum provides a more favorable balance of forces than other fora where the EU votes as a bloc.<sup>264</sup>

In theory, a wide range of countries participate in crafting the standards. Thirty-eight participating country and eight observing country delegations have indicated their interest in the work of the TC.<sup>265</sup> In practice far fewer countries attend, however, and fewer still participate actively in the drafting and debate process. For example, at a May 1994 plenary session held in Australia (to facilitate the attendance of industrializing Asian countries), only six of twenty-six delegations (Brazil, Malaysia, China, Korea, Thailand, and South Africa) came from non-OECD states.<sup>266</sup> In contrast, fourteen European states attended.<sup>267</sup> Attendance by less-developed country delegations

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262. See generally Matthew L. Schemmel & Bas de Regt, *The European Court of Justice and Environmental Protection Policy in the European Community*, 17 B.C. INT'L & COMP. L. REV. 54 (1994); Philippe Sands, *The 'Greening' of International Law: Emerging Principles and Rules*, 1 IND. J. GLOBAL LEGAL STUD. 293, 304-07 (1994).

263. ISO member bodies represent states individually, with no regional representation. See *supra* note 39 and accompanying text. The CEN is a regional affiliate of ISO but not a member.

264. Most international environmental treaties are open for signature by both states and regional economic integration organizations. See, e.g., Montreal Protocol, *supra* note 20, art. 15, at 1559; Basel Convention, *supra* note 13, at art. 21. Whether a decision is within the competence of the state or the regional organization depends on the regional arrangement, but if the regional organization votes, the states cannot also vote. The regional organization generally receives the number of votes the member states would have received under the treaty. See, e.g., Basel Convention, *supra* note 13, at art. 24; Convention on Long-Range Transboundary Air Pollution, *supra* note 7, at art. 14.2.

265. Memorandum from Dawne Schomer, Texas Instruments, Leader of U.S.-TAG Auditor Qualifications Task Group, to other U.S.-TAG members 1 (May 27, 1994) (on file with author). By July 1995, membership in the TC had increased to 74 member states. MCKIEL, *supra* note 23, at 2.

266. MCKIEL, *supra* note 23, at 2. 1 YEARBOOK OF INTERNATIONAL ORGANIZATIONS 1246 (Union of International Associations ed., 1994).

267. Memoranda from Dawne Schomer, *supra* note 265, at 1.

at meetings held in the U.S. and Europe is even more sparse.<sup>268</sup> Part of the problem is that reliance on the English language puts non-English speaking delegates at a disadvantage. Another obstacle, again, is the cost of attending meetings, as well as, for some states, a lack of technical personnel. A third may be the sense among some participants that the developing countries will have no choice but to fall in line with whatever standard is finally approved, and so their involvement would be wasted effort. While participants in the ISO process seem aware of the dangers posed by a lack of developing country participation, concern has not translated into action by the ISO Secretariat. The most substantive disputes in the TC have involved the U.S., Europe, and to a lesser degree, Japan, Australia, Canada, New Zealand, Korea, and South Africa.<sup>269</sup>

The lack of adequate developing country input poses a number of dangers for the process. First, developing countries are less likely to abide by standards they had little role in crafting. Despite the predicted market pressures, producers in these countries may refuse to adopt and apply the standards, thus nullifying one of the benefits of a global standard-setting process. Indeed, uniform standards for industry may be impossible for developing country industries to meet, and would, in effect, serve as non-tariff trade barriers.<sup>270</sup> The lack of vigorous participation from affected developing countries increases the likelihood that developing countries will make such an argument.

ISO's mandate requires that ISO technical committees, subcommittees, and working groups have balanced participation from all key sectors of society. The ISO Secretariat in Geneva is well-positioned to ensure a better mix of representatives, especially at key drafting meetings. Although generally under ISO rules, national standard-setting bodies determine their own composition, the Secretariat should exercise more direct, first-line supervision over the composition of TC's, SC's, and WG's where, as here, standards are being developed directly rather than through harmonizing existing national standards. The

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268. Telephone Interviews with several U.S. TAG members (May 1994). By 1995, this situation had improved dramatically. The Netherlands provided a grant to enable developing country representatives to attend the annual meeting, and delegates from Brazil, Colombia, India, Chile, Malaysia, China, Mexico, Thailand, Indonesia, Mauritius, Vietnam, Jamaica, Trinidad-Tobago, and Zimbabwe attended the July 1995 TC 207 meeting. McKIEL, *supra* note 23, at 7. However, the grant is ad hoc and runs only through 1996. Furthermore, it covers only the annual TC meeting, not the smaller SC and WG meetings where much of the actual drafting is done. *Id.* at 2.

269. See generally McKIEL, *supra* note 23.

270. To their credit, as noted *supra* text accompanying note 222, ISO participants have been sensitive to this concern. But a completely flexible set of requirements, with no minimum set of actions, would also be completely toothless. What is needed instead is specific negotiation of special concessions for developing country domestic industry (and/or small- and medium-size industries). This requires full participation by LDC interests, however.

Secretariat should institute a fund, established through the equivalent of an international assessment scale,<sup>271</sup> to finance attendance at meetings by NGO's, small businesses, and developing countries. In addition, ISO should widely publicize the existence of standard-setting processes with potentially broad societal impacts. These measures should be put into place well before the ISO 14000 standards are revised.

A more subtle problem, arising in part from these process limitations, concerns the focus of the standards themselves. They are highly focused on the environmental problems and issues of the industrialized world. On their face, the assessment, management, and auditing procedures seem to be location-neutral. But, to the extent they list possible environmental impacts or attempt to develop life-cycle assessment criteria, the vantage point is that of a densely populated, highly industrialized society. Prominent issues, such as emissions limits and waste problems, are relevant to some non-OECD countries (especially so-called newly industrializing countries or NIC's). However, problems such as loss of habitat, loss of biodiversity, and desertification that are of particular concern to less developed countries are mostly encompassed by a catch-all "environmental impacts" category.<sup>272</sup>

The danger of developed-country bias is perhaps most keen in the eco-labelling area. The potential for bias if products must comply with specific local or regional regulations was mentioned earlier. In addition, the criteria for setting product categories and for determining which products are substitutes for each other may be skewed by a lack of knowledge of "low-tech" developing-country alternative prod-

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271. Such an assessment process could be similar to the mechanism by which nations' contributions to the fund, discussed *supra* note 5, established under the Montreal Protocol are calculated, or to the mechanism used by the United Nations in funding peacekeeping activities, which hinges largely on per capita income levels. *United Nations—How Assessed Contributions for Peacekeeping Operations are Calculated*, GOVERNMENT ACCOUNTING REPORTS, August 8, 1994, available in LEXIS, EXEC Library, GAORPT File.

272. It is certainly much easier to quantify and assess industrial pollution than the loss of soil, species, and the like which may be more serious problems in some developing countries. Furthermore, while the EMS and eco-audit standards are ostensibly useful for any organization, they seem focused on industrial organizations rather than, for example, agri-business. The eco-labelling sample criteria focus on energy use, use of material resources, water and air contamination, and soil degradation/solid waste disposability. While these are important problems in developing countries as well, they do not exhaust the range of problems of developing countries. The list of criteria varies among sub-committees. That of the environmental performance evaluation sub-committee lists desertification, deforestation, biodiversity, habitat conservation, and hydropower among the possible "environment categories," while some of the labelling subgroups use only a catch-all "other" category for such effects. Compare INTERNATIONAL ORGANIZATION FOR STANDARDIZATION, ISO/TC 207 (SC4 N57), ENVIRONMENTAL PERFORMANCE EVALUATION, FRAMEWORK DOCUMENT ON DEFINITIONS, PRINCIPLES AND METHODOLOGY 7 (May 1994) with INFORMAL COMMITTEE DRAFT, *supra* note 185, at 9.

ucts, or by a (conscious or unconscious) desire to favor national industries. Monitoring requirements for the award of an eco-label, or for verifying environmental impact data, may require technologies or techniques beyond the reach of small developing countries. For example, life-cycle analysis, even in its "streamlined" version, can be very expensive.<sup>273</sup> Thus, limited participation in the drafting process shades over into substantive shortcomings in the scope and content of the standards.

### *B. Consensus and the Lowest Common Denominator*

A final set of concerns revolve around the consensual nature of the standards. Although the ISO rules do not require absolute consensus, representatives make a sincere attempt to win the approval of all major participants.<sup>274</sup> The danger, of course, is that disputed points will simply be omitted, so that what remains is a least-common-denominator standard with few teeth. Far from any notion of technology-forcing, standards will tend to be set where all participants can easily reach them. This problem is especially worrisome if the standards are set by those who have the greatest financial stake in their stringency.

To some degree, these concerns are borne out in the current drafts of the environmental management standards. In response to criticism of the British standard by U.S. and Japanese participants, offending clauses were removed.<sup>275</sup> For example, the specification of an environmental effects register, the possibility of making such a register public, and the need for third-party certification of compliance with the standard were deleted or relegated to an annex.<sup>276</sup> As a result, compared with the British standard that served as a template, the draft standard is a step backwards. Similarly, the original idea of sector-by-sector minimum emissions and waste standards was jettisoned as too controversial.<sup>277</sup> While the standard-setters were willing to devise fairly far-reaching requirements ensuring organizational consideration of environmental concerns, they were ultimately loath to impose any substantive fetters on corporate decision-making.

This procedural approach has the advantage of forcing internal discussion prior to establishing goals and priorities, making it more likely that organizations will take the resulting plans seriously rather than seeking minimal compliance with externally imposed rules. The

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273. Curran, *supra* note 183, at 433.

274. See Hamilton, *supra* note 248 (regarding efforts undertaken by ANSI representatives to ensure consensus).

275. See generally discussion *supra* notes 139-59 and accompanying text.

276. See *supra* notes 153-56 and accompanying text.

277. See *supra* notes 173-76 and accompanying text.

danger is that because the goals and priorities are entirely self-chosen, they will only produce environmental improvements up to the point where changes no longer save short-term costs, and will be ineffective at inducing changes requiring a longer investment horizon or imposing extra costs.<sup>278</sup> Nonetheless, even the search for short-term cost savings through reducing emissions and wastes may create its own dynamic and make longer-term changes more feasible down the line.

These problems with the ISO standards are common to many private standard-setting schemes. A major drawback to voluntary approaches is their tendency to be less stringent than mandatory regulation. Studies of private standard-setting in a domestic context have found that publicly-derived regulatory standards overall tend to be stricter than private ones<sup>279</sup> and to be more technology-forcing.<sup>280</sup> As Ross Cheit has written, "public agencies are more willing than private ones to select early compliance deadlines, require use of unproven technologies, and regulate in a manner that interferes with traditional notions of managerial discretion."<sup>281</sup> This observation seems to be borne out in the elimination of those proposals intended to impose substantive obligations or restrict management prerogatives during development of the ISO standards. On the other hand, compared to what many companies are now doing, any efforts to move beyond regulatory compliance are certainly an improvement.

In part, the danger of reduction to the lowest common denominator is a feature of any attempt to develop a global standard applicable to organizations or states of widely varying technological and financial capability. One solution to the risk of some developing country industry being unable to comply with uniform standards is to water down the content of the standards. In my opinion, this was the route chosen in the ISO 14000 standard-setting exercise. This was not the only possible solution, however. In public international environmental law negotiations, mechanisms such as extended timetables and technical and financial assistance have been used to allow developing countries leeway without lessening their obligations.<sup>282</sup> One explanation for the

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278. See Anderson, *supra* note 207, at 101.

279. ROSS E. CHEIT, *SETTING SAFETY STANDARDS: REGULATION IN THE PUBLIC AND PRIVATE SECTORS* 18 (1990).

280. *Id.* at 154-55.

281. *Id.* at 18. Public agencies are more likely to consider product bans, *id.* at 153-54, and to require immediate results, *id.* at 157-58. In part, the differences are due to the predominance of engineers in private standard-setting, compared to that of lawyers in public rulemaking. *Id.* at 18. All these observations are borne out in the ISO standards.

282. For example, the Montreal Protocol on Substances that Deplete the Ozone Layer, *supra* note 20, at art. 5, contains technical and financial assistance in helping developing countries to phase out CFC's, and gives them an extra ten years in which to do so. The Climate Change Convention, *supra* note 4, at art. 4, also incorporates differential obligations for developing countries. See generally PETER H. SAND, *LESSONS LEARNED IN*

different outcomes in the ISO may be the lack of sufficiently influential developing country or NGO representatives to shepherd any such initiative through the drafting process.

Finally, the "compliance pull" of voluntary standards may be limited to consumer goods and other highly visible sectors, or to large enterprises where brand-name recognition is important. Unlike the quality control arena, there is less immediate benefit to consumers from producer compliance with the standards. It is unclear to what extent, over the long term, consumers will base purchasing decisions on ecological criteria.

In the long run, a procedural, management-systems approach will not be enough to assure the necessary degree of environmental protection. A system of substantive obligations will be required. However, the ISO model provides a useful starting point for developing and implementing those obligations.

## VI

### THE POTENTIAL OF THE ISO MODEL IN RETHINKING GLOBAL ENVIRONMENTAL GOVERNANCE AND THE NEED FOR REFORM

The criticisms and limitations of the ISO standards raise the basic issue of whether voluntary international standards can be as effective as their proponents suggest, or whether mandatory regulation will eventually be necessary. A second question considered here is how a voluntary standards regime might interact with a public one. The limitations of the process-focused approach of the ISO standards are considered further below.

#### A. *The Relative Advantages of Private Standards*

Voluntary standards, which are enforced by indirect pressures rather than regulators, have certain advantages. They reduce the cost of public regulation and enforcement by shifting enforcement costs to the producers themselves. For example, the producers must pay for certification or documentation of compliance. Moreover, private standard-setting is not subject to the trade disciplines of GATT.<sup>283</sup> Private standards are often more easily concluded and revised than public agreements. The ISO environmental management system stan-

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GLOBAL ENVIRONMENTAL GOVERNANCE 8 (1990); Daniel Barstow Magraw, *Legal Treatment of Developing Countries: Differential, Contextual, and Absolute Norms*, 1 COLO. J. INT'L ENVTL. L. & POL'Y 69 (1990).

283. GATT is directed at limiting government regulations, not private standards. See *supra* note 79 and accompanying text.

dard was developed in less than three years.<sup>284</sup> In part, this is due to the limited participation in the private process, as discussed above, and so is a dubious virtue. The participation of technical personnel from the industries or entities affected by the standard may make for quicker and more practical arrangements because the "real parties in interest" are directly at the negotiating table.

Voluntary systems rely for their effectiveness on the professional orientation of decisionmakers<sup>285</sup> (here, environmental and occupational safety compliance experts), and on the influence of liability law, public opinion, and consumer pressure.<sup>286</sup> They depend as well on the incentive of large, visible producers like the chemical industry, who are already subject to public scrutiny and some self-policing,<sup>287</sup> to ensure that other industry sectors incur the same compliance expenditures. The virtues of voluntary arrangements may be greatest when the enforcement ability of a mandatory system is weak, as it is in the international arena. To some degree, all international regulation is "voluntary," requiring the consent of states. In the realm of public international law, compliance often is not achieved, even though it is mandatory. In the realm of voluntary international standards, compliance is often achieved, even though it is not required.

### *B. The Interplay Between Public and Private Standards*

One potential result of the ISO process is that voluntary standards will serve to head off national or international mandatory rules and to control the content and form of the rules that emerge.<sup>288</sup> As debate intensifies over public law issues such as the need for a global environmental regulatory agency and for measures against eco-dumping, the private standards could constitute a viable, existing alternative more acceptable to global business interests. Therefore, it would be in the interest of the regulated community to define the standards at their inception. These standards would fit within a long tradition of attempted "self-regulation" by private actors hoping to avoid command-and-control rules.

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284. The EMS Draft standard started with a recommendation of the Strategic Advisory Group on the Environment (SAGE) in the fall of 1992. Cascio, *supra* note 31, at 45. By early 1995, the EMS Draft Standard was virtually complete and ready for balloting. EMS FEBRUARY DRAFT, *supra* note 131, at 1.

285. CHEIT, *supra* note 279, at 159-62.

286. See generally Wynne, *supra* note 197, at 93-139.

287. The Bhopal disaster, among others, increased scrutiny of the environment and safety practices of chemical companies. See generally Jim Potter, *Chemical Accident Prevention Regulation in California and New Jersey*, 20 *ECOLOGY L.Q.* 755, 771-75 (1993). As discussed *supra* note 102, U.S. chemical manufacturers must pledge to abide by the principles of Responsible Care.

288. See Cascio, *supra* note 31, at 47 (ISO standards may obviate the need for adoption of "command and control" mandatory schemes).



Any undercutting of public-sector rules through private self-regulation is troubling from an environmentalist viewpoint if public-sector rules are potentially more stringent. There have been a number of prior efforts to use private self-regulation in the international environmental arena. However, to date, efforts to preempt public international standards have not often proved successful.

The example of the regime for control of marine oil pollution may be instructive. As it became clear in the wake of the 1967 Torrey Canyon oil spill that a regulatory regime was in the offing, oil tanker owners negotiated a "Tanker Owners Voluntary Agreement Concerning Liability for Oil Pollution" (TOVALOP), in part hoping to avoid stricter mandatory controls.<sup>289</sup> However, the voluntary agreement did not prevent completion of the 1969 Civil Liability Convention.<sup>290</sup> On the contrary, the voluntary agreement showed states that the general approach was feasible and economically viable. The speed and ease with which the voluntary agreement began operating also facilitated the eventual transition to the state-based convention, which only came into force almost six years after its adoption.<sup>291</sup> A similar dynamic between public and private is possible in the case of the current environmental standards.

The saga of attempts to create international controls over the distribution and use of pesticides is also instructive.<sup>292</sup> The agrochemical industry supported efforts by the U.N. Food and Agriculture Organization (FAO) to preempt other regulatory initiatives by drafting a voluntary code of conduct.<sup>293</sup> This strategy of avoiding frontal confrontation with environmentalists while choosing a friendly forum and a watered-down, voluntary set of obligations, worked well for six years.<sup>294</sup> It kept other international institutions and agencies<sup>295</sup> from entering the field while allowing industry to point to progress in reducing pesticide risks.<sup>296</sup>

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289. R. MICHAEL M'GONIGLE & MARK W. ZACHER, *POLLUTION, POLITICS AND INTERNATIONAL LAW* 157 (1979).

290. International Convention on Civil Liability for Oil Pollution Damage, Nov. 29, 1969, 9 I.L.M. 45.

291. TOVALOP was drafted in 1969; the International Convention on Civil Liability for Oil Pollution Damage was opened for signature in 1969, but only entered into force in 1975. M'GONIGLE, *supra* note 289, at 143 n.2.

292. This account is based on Robert L. Paarlberg, *Managing Pesticide Use in Developing Countries*, in *INSTITUTIONS FOR THE EARTH: SOURCES OF EFFECTIVE INTERNATIONAL ENVIRONMENTAL PROTECTION* 309 (Peter M. Haas et al. eds., 1993).

293. *Id.* at 320-21.

294. *Id.*

295. Including the United Nations Environment Programme (UNEP), World Health Organization (WHO), GATT, and (to a lesser degree) the International Labour Organization (ILO). *Id.* at 320-28.

296. *Id.* at 321.

Over time, however, several developments have eroded the legitimacy of the voluntary code. First, non-governmental organizations have disclosed evidence of massive industry violations of the code.<sup>297</sup> Because industry had embraced the voluntary code as its own, and had even made adherence a condition of membership in the agrochemical trade association,<sup>298</sup> it recognized that industry conduct had to change. It had to take evidence of noncompliance seriously and attempt to police its own. Second, pressure has mounted from NGO's and some LDC governments to transform the code of conduct into a legally binding document.<sup>299</sup> Third, over time the obligations in the code of conduct have grown more stringent<sup>300</sup> (with the addition of a prior informed consent procedure, for example), but because industry has publicly embraced the code approach,<sup>301</sup> it cannot easily abandon the process.

These past experiences suggest that indeed, ISO 14000 may forestall more stringent mandatory national or international regulation for a time. However, if material improvements in environmental performance are too slow, the hiatus is likely to be short. It may be possible over time to strengthen the voluntary regime by adding provisions on substantive emissions, waste reduction, or other issues. Market pressures resulting from voluntary commitments should cause even recalcitrant producers to respond. And if voluntary standards prove inadequate, industry will find it harder to argue that mandatory regimes are too impractical, costly, or complex.

### C. *A Proposal for Producer- and Product-Based Standards*

A major drawback to the current ISO effort is its heavily procedural nature. While encouraging producers to install appropriate assessment, measurement, and management systems, the standards contain no specific commitments to emissions reductions, source reduction, materials or industrial process changes, or the like. Procedural changes are a necessary and a useful first step. But eventually, especially as cost-saving changes are exhausted, it is unlikely that management systems, auditing, and information alone can compel sustainable industrial development.<sup>302</sup>

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297. See PESTICIDES TRUST/PAN INTERNATIONAL, *THE FAO CODE: MISSING INGREDIENTS, PRIOR INFORMED CONSENT IN THE INTERNATIONAL CODE OF CONDUCT ON THE DISTRIBUTION AND USE OF PESTICIDES, FINAL REPORT*, Oct. 1989, cited in Paarlberg, *supra* note 292, at 336 n. 48.

298. Paarlberg, *supra* note 292, at 321.

299. *Id.* at 345.

300. *Id.* at 342.

301. *Id.* at 343.

302. See Anderson, *supra* note 207, at 101-02.

A shift towards minimum substantive rules of environmental performance seems inevitable, and several alternatives have been proposed. Some commentators have called for the creation of an international body capable of setting substantive minimum environmental standards.<sup>303</sup> Others advocate the negotiation of a convention on minimum standards for manufacturing and processing industries.<sup>304</sup> The convention would use waste audits to establish baselines and then develop subsequent sectoral protocols.<sup>305</sup> The ISO process contains the germ of several ideas that could provide a complementary model. This model would incorporate participation of actors other than states, private monitoring (or at least private financing) of compliance, minimum standards, technical assistance, and technology transfer. Most important, it would focus on regulation of *producers* and *products*, rather than states, as the point of regulation.

Unlike current global environment negotiations, the ISO provides a model for standards development that is not restricted to states. Although the current initiative is hindered by a lack of representation from NGO's and developing-country governments, a reformed and expanded body could involve producers, environmental and consumer groups, associations of local communities affected by production, and all levels of government. Although nongovernmental actors currently play an important role in treaty negotiations, that role is generally informal and excludes the ability to vote.<sup>306</sup> An ISO-type model would allow NGO's and industry to participate fully and to make their arguments and positions public, as an official component of each delegation. Admittedly, increasing the number of actors at the negotiating table makes for more complex and extended negotiations. Further, if the standards were intended to be mandatory, agreement would be more difficult than it has been at the ISO. But the result would be more broadly representative, and hence legitimate, than the results of entrusting the task to states alone or to an international civil service.

Standards should be developed on a sectoral basis, starting with the most heavily polluting sectors. The kind of Environmental Impacts Register envisioned in the original British EMS standard or in

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303. See, e.g., Palmer, *supra* note 8, at 283 (tripartite institution modeled on the International Labour Organization (ILO)); Esty, *supra* note 8 (Global Environment Organization); Charnovitz, *supra* note 77, at 283 (institution modeled on ILO).

304. The Environment and Energy Study Institute has proposed one such convention. GARETH PORTER, ENVIRONMENTAL AND ENERGY STUDY INSTITUTE, MULTILATERAL AGREEMENT ON MINIMUM STANDARDS FOR MANUFACTURING AND PROCESSING INDUSTRIES (July 1994).

305. *Id.* at 1.

306. SUSSKIND, *supra* note 6, at 43-48; Philippe J. Sands, *The Environment, Community and International Law*, 30 HARV. INT'L L.J. 393, 397-401 (1989).

EMAS could be used to set baselines for environmental protection, although to do so a certain amount of information would have to be made public. The standards would set minimum (or maximum, as the case may be) levels for items such as energy and resource use, emissions limits, disposal and reuse obligations, prohibition on the use of certain damaging substances or processes, and protection of biological resources and sensitive areas. States would be allowed to employ more stringent standards, even though complete harmonization would not result. Scandinavian countries envisioned proposals of this sort during development of the ISO 14000 standards, but they were not adopted.<sup>307</sup>

Most important, the monitoring and enforcement of the standards would be based on *producers* and *products*, not states. Once the standards were in place, each individual or corporation involved in more than de minimis production in the relevant industrial sector would be responsible for compliance with the standards.

Compliance would be monitored and enforced through a combination of third-party certification for large producers and for smaller producers self-certification, with random third-party checks. Self-certification would reduce the burden on small- and medium-sized enterprises. Certification of the producer would be required for imports as well as for national producers. The certification would constitute, in effect, a process standard equally applicable to domestic and foreign producers. Certification would allow for goods that appear to be identical, but are actually made by different methods, to be classified differently under tariff schemes. Goods from producers that have not obtained certification could be allowed to circulate in global commerce, but they would be taxed more heavily than those with certification. Alternatively, in cases with particularly serious environmental impacts, goods from non-certified producers would be banned.

One of the major difficulties in current enforcement of international obligations has been the lack of resources. Due to lack of resources, national environmental authorities in many countries cannot provide an effective check on producer behavior.<sup>308</sup> As "austerity" programs continue and budgetary constraints in both developed and developing countries increase, the public sector may be less able to provide the resources necessary for enforcement, leaving the private sector as the only viable source of funding. A third-party certification

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307. Telephone Interview with Chris Bell, *supra* note 149.

308. See, e.g., Joseph G. Block & Andrew R. Herrup, *The Environmental Aspects of NAFTA and Their Relevance to Possible Free Trade Agreements Between the United States and Caribbean Nations*, 14 VA. ENV'T'L L.J. 1, 13-15 (1994) (failure of environmental protection in Caribbean nations); ESTY, *supra* note 219, at 156 (failure of developing countries to protect environment due to lack of resources, technical ability).

system, like that contemplated under EMAS, would allow the costs of monitoring compliance to fall directly on the regulated entities. This scheme would require rules for certifiers, strict checks and regular quality control over certifying bodies, and the development of a uniform certifying methodology.<sup>309</sup> Even better, private certifiers could work in conjunction with national environment ministry officials, thus combining technical assistance with a financing mechanism that does not further burden poor countries.

While a for-profit certification system would certainly be open to collusion or even corruption, two factors tend to keep such tendencies in check: (1) the professional norms and internalized rules of a multinational cadre of environmental compliance certifiers whose job is not tied to, and who are not beholden to, any one industry or country; and (2) the existence of detailed rules and protocols for the certification process; and (3) the existence of NGO's who will play an active role as watchdogs. Ideally, a roster of certifiers should be kept available, with the certifier chosen by lottery. This would reduce any tendency for certifiers to soft-pedal their results for fear of not being rehired. While these factors would not completely obviate tendencies to identify with the certified industries (the private equivalent of "agency capture"), they indicate that professional certifiers might do no worse than public officials in this capacity.

This system would allow distinctions among producers based on production methods as well as the products themselves. It would avoid penalizing environmentally responsible firms just because other firms caused the state to violate its international responsibilities or to incur international sanctions. It would allow differentiation based on the real abilities of firms to comply with high standards of protection, not on an artificial criterion such as whether the firm was located in a developing state. Thus, it would hold Mitsubishi or IBM to the same high standard whether their plant happened to be located in Thailand or Japan, while allowing for flexibility with respect to smaller producers. Consequently, global corporations would have less incentive to avoid responsibility for their environmental actions by shifting production from one state to another.<sup>310</sup>

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309. See Thurston, *supra* note 118, at SR13 (regarding the development of a uniform certifying methodology under ISO 9000). Similar efforts will be required under ISO 14000, as well as under any other system that relies on private certifiers.

310. Admittedly, any criteria for differentiation—whether it be national versus global capital, or size of the plant/enterprise—will raise problems of definition at the margins, and might lead to unwanted avoidance behavior on the part of firms. For example, if global or transnational corporations were expected to comply with stricter standards than national producers, joint ventures and shell corporations of all sorts might arise. If size were the relevant criterion (i.e. if some requirements had a "small- and medium-sized enterprise" exception), one might expect to find large conglomerates broken down into a number of

I am not arguing for abolishing the state as a locus of regulation, nor for a complete shift away from the current form of global environmental decisionmaking. Indeed, while a voluntary set of standards like those produced by the ISO might be a good starting place for substantive sectoral standards, eventually state action will be necessary. The question is whether voluntary standards will prevent or, alternatively, accelerate the move to mandatory global standards.

Gareth Porter has argued that states might eventually be willing to negotiate such voluntary standards for several reasons. First, developing countries might fear more stringent, and less controllable, unilateral trade actions like those contemplated by the U.S. Congress.<sup>311</sup> They might also be swayed by evidence, described above, that reducing pollution and waste at the source can lower costs and increase efficiency, especially if a scheme contemplated generous technical assistance in designing and implementing improvements.<sup>312</sup> A third reason might be the desire of developing countries to protect their interests by participating from the start in any standard-setting process. The selection of a negotiating forum where each country has a single vote; the specific voting and financing rules adopted; and developing countries' ability to gain concessions for local (non-transnational) or smaller industries might be important. Of course, state participation would involve calculated risks, and the foregoing arguments by no means guarantee state participation.

## VII

### CONCLUSION

Many of the features of the ISO standards have the potential to change the way we implement measures to protect the environment. But in their current form they are hindered by process limitations and the lack of substantive obligations. To move from the current standards to the producer and product-based system outlined above, changes in the composition of ISO drafting committees and a shift from procedural to substantive standards will be necessary. Standards should be expressed in minimum terms. They should include both emissions limits and process changes, and be set according to industrial sectors. The scheme should also include financial assistance and

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smaller, yet interlocking, enterprises. Any type of differential obligations will run into these boundary problems, yet they do not seem severe enough to invalidate the idea. On avoidance behavior by regulated entities, see generally Cass Sunstein, *Paradoxes of the Regulatory State*, 57 U. CHI. L. REV. 407 (1990).

311. See discussion *supra* note 238. Unilateral action by powerful states has in the past led to multinational agreement where none had seemed possible. See, e.g., Richard B. Bilder, *The Role of Unilateral State Action in Preventing International Environmental Injury*, 14 VAND. J. TRANSNAT'L L. 51, 82 (1991).

312. See also Porter, *supra* note 304.

delayed compliance schedules for small- and medium-size national industry, so as to avoid dilution of substantive minimum obligations. Financing should come from the private, not public, sector.

In addition, the standards must be accompanied by fundamental changes in trade law, especially the law to be applied by the WTO. As soon as the standards are incorporated into national or regional law anywhere, they will run afoul of recent GATT jurisprudence on process-based import restrictions or taxes.<sup>313</sup> That jurisprudence is not required by the text or history of GATT and makes little sense in a world focused increasingly on production processes for sustainable development. It should be rejected.

With these changes, a move to producer- and product-based regulation may enhance environmental protection. In a rush to condemn "corporate control" of the ISO process, environmentalists should be careful not to throw out the possibilities with the problems. Work is needed to make sure the next round of ISO standards fulfills their promise, and to expand public control over both *how* things are produced and *what* is produced.

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313. See discussion *supra* notes 95-97 and accompanying text.

