ISO 14000-14001, The Developing World's Perspective

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> "[I]t is the very procedural nature of the ISO 14000 standards that will bridge the tension between international trade and environmental protection."[1]
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> "[T]he standard will make the single biggest impact on sustainable development of anything out there."[2]
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> "Development Agencies are increasingly recognizing that a standardization infrastructure is a basic condition for the success of economic policies aimed at achieving sustainable development."[3]

I. INTRODUCTION

Since the 1990s, there has been global recognition of the need to pursue a sustainable development approach to environmental protection. The tension between the achievement of this goal and increased international economic interdependency has been the subject of considerable debate because there is little consensus on how nations can achieve both objectives simultaneously.[4] The ISO 14001 Environmental Management Systems Standards promulgated by the International Standards Organization (ISO) are currently being lauded as a way to resolve this tension.[5] There has been an increasing tendency for states and intergovernmental organizations to turn to private standard-setting bodies such as the ISO to create and maintain international principles, norms, rules, and decision-making procedures.[6]

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1. Paula C. Murray, *The International Environmental Management Standard, ISO 14000: A Non-Tariff Barrier or a Step to an Emerging Global Environmental Policy?*, 18 U. PA. J. INT'L ECON. L. 577, 599 (1997).

2. Joe Kirwin, *Interview: Heads of U.S., Dutch ISO Delegations Reflect on Oslo Meeting*, Daily Env't Rep. (BNA) No. 131, at D-15 (July 10, 1995).

3. Int'l Org. for Standardization, *Introduction to ISO*, *at* www.hartah.com/pages/_ISO_about1.html (last visited Nov. 24, 2003).

4. *See* Murray, *supra* note 1, at 577.

5. Douglas A.J. Taylor, *IS ISO 14001 Standardization in Tune with Sustainable Development? Symphony or Cacophony?*, 13 J. ENVTL. L. & LITIG. 509, 509 (1998).

6. *See* Jennifer Clapp, *The Privatization of Global Environmental Governance: ISO 14000 and the Developing World*, *in* 4 GLOBAL GOVERNANCE 295 (1998). Two other examples of private standards-setting bodies performing public functions include the International Corporation for Assigned Names and Numbers (ICANN) and the use of rating agencies for the issuance and trading of debt securities. *See* Michael Froomkin, *Wrong Turn in Cyberspace: Using ICANN to Route Around the APA and the Constitution*, 50 DUKE L.J. 17, 24 (2000), in which he discusses how the U.S. Department of Commerce (DoC) granted ICANN, a private corporation, authority to oversee the Internet Domain Name System. *See id.* at 25. ICANN requires all domain registrants to submit to mandatory arbitration of trademark claims before a board selected by ICANN. *See id.* Registrants are not represented on the board. *See id.* at 24. It is the DoC's position that ICANN is engaged in standard-setting with regard to internet stability and competition. *See id.* at 35, 84, 177; *see also* Steven L. Schwarcz, *Private Ordering of Public Markets: The Rating Agency Paradox*, 2002 U. ILL. L. REV. 1, 4-5 (2002) (discussing how the ratings of an agency designated as a Nationally Recognized Statistical Rating Organization can

ISO 14001 allows a company "to establish procedures that set environmental policy and goals, to conform to them, and to demonstrate the conformance to the organization's stakeholders."[7] Although voluntary for firms, states are placing great hope in the ISO 14000 standards to help improve environmental quality.[8] States are adopting them, either whole or in part, as their own national environmental management standards (EMS).[9] States are also using ISO 14001 as a basis for coregulation between the private and public sectors.[10] Coregulation is defined as a form of environmental regulation in which industry and government work in partnership to achieve environmental protection.[11] In addition, the World Trade Organization (WTO) has deemed the ISO 14001 series as legitimate public standards under the Technical Barriers to Trade Agreement (TBT).[12] The ISO 14001 series is in essence a hybrid public-private regime whereby standards of a private organization are granted public status by states and intergovernmental organizations.[13]

ISO had two goals behind the development of the ISO 14000 series. First, an international standard for environmental protection would prevent the numerous national and regional regulations from operating as trade barriers.[14] Second, an international standard would promote sustainable international environmental protection.[15] ISO's stated aim "is to support environmental protection and prevention of pollution in balance with socio-economic needs."[16]

In spite of the worthiness of ISO's dual goals, the standards are proving fictitious from the perspectives of developing countries and

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satisfy rating requirements established by government agencies (such as the Securities and Exchange Commission) in certain federal regulatory schemes); Alfred C. Aman, Jr., *Globalization, Democracy and Domestic Law: Globalization, Democracy, and the Need for a New Administrative Law*, 10 IND. J. GLOBAL LEGAL STUD. 125, 143, 151 (2003) (stating how the province of administrative law includes administration by private entities and hybrid public/private bodies); Susan H. Shin, *Comparison of the Dispute Settlement Procedures of the World Trade Organization for Trade Disputes and the Inter-American System for Human Rights Violations*, 16 N.Y. INT'L L. REV. 43, 43 (2003) (noting how, although the WTO is a public law entity, it has increasingly been turning to private bodies for assistance).

7. Murray, *supra* note 1, at 579.

8. *See* Clapp, *supra* note 6, at 295.

9. *See id.*

10. *See* RIVA KRUT & HARRIS GLECKMAN, ISO 14001: A MISSED OPPORTUNITY FOR SUSTAINABLE GLOBAL INDUSTRIAL DEVELOPMENT 95 (1998).

11. *See id.* at 93.

12. *See* Clapp, *supra* note 6, at 295.

13. *See id.*

14. *See* Murray, *supra* note 1, at 579.

15. *See id.* at 582.

16. *See id.*

environmental organizations due to the distorted process by which they were drafted. Developing countries were neither adequately represented in the negotiations of the ISO 14000 series, nor were they key players in the administrative bodies of ISO that ultimately decided what standards to finalize and promulgate. The negotiation process was dominated by countries of the developed world, principally the United States.[17] U.S. revisions to the standards diluted any impact that the standards could have on environmental protection.[18] Ironically, despite the fact that the developing world did not have a voice in how the standards were drafted, developing countries are viewing the standards as a way to solve their internal environmental problems and achieve sustainable development, and several developing countries are implementing the standards as state law. Although developing countries view ISO as the cure to their environmental woes, this cure will never be realized if internal environmental laws are based on inherently flawed standards that are the product of a flawed and distorted negotiation process. If the developing world implements the ISO standards, the world will have a universal set of rules that fall fatally short of the organization's own articulated goals.[19]

This Article analyzes the specific problems and opportunities that ISO 14001 presents to developing countries seeking to meet the dual interests of developing their economies through international trade and conserving their environment through innovative management techniques.

Part I discusses the background to the development of the ISO 14001 series including the origin of ISO 14001, the contents of the standards, and the logistics of the drafting process.

Part II analyzes whether ISO 14001 can fulfill the environmental protection needs of developing countries as articulated in Agenda 21. Agenda 21 is an international agreement signed by 178 countries at the United Nations Conference on the Environment and Development (UNCED) held in Rio De Janeiro in 1992, in which developing and industrialized countries agreed to reduce the generation of hazardous wastes as part of an "integrated cleaner production approach."[20] The document specifically provides for the transfer of environmentally sound technology from the developed to the developing world.[21] ISO 14001 will also fail to meet additional environmental needs not expressly

17. *See* KRUT & GLECKMAN, *supra* note 10, at 41-45, 61.
18. *Id.*
19. *See id.* at 122-23.
20. Clapp, *supra* note 6, at 305.
21. *See id.*

outlined in Agenda 21. The standards will not help the developing countries meet these needs because they were not full participants in the drafting process.

This Part also discusses the opportunity for developing countries to use ISO 14001 as a basis for coregulation. In order for ISO 14001 to be an effective coregulatory instrument, five key elements used in most environmental management systems, but absent from the standards, must be added to ISO 14001. This would transform it into "ISO 14001 Plus." These additional elements are (1) mandatory compliance, (2) measurable improvements in environmental performance, (3) environmental audits verified by a third party, (4) publication of the audits, and (5) public participation mechanisms.[22] In using ISO 14001 as a coregulatory tool, developing countries should refrain from using the developed world as a model, given that environmental regulations and enforcement polices differ greatly between the developing and developed countries.

Part III is a case study analysis of the motivations behind implementation of ISO 14001 in South Africa, China, Zimbabwe, Indonesia, South Korea, and Brazil. Part III discusses how ISO 14001 is operating at the domestic level and the specific problems and opportunities that the standard is presenting for each country. I argue that the failure of the standards to incorporate the five key elements for effective coregulation make them vulnerable to a constitutional challenge in South Africa and China.

Part IV discusses the trade implications that ISO presents for developing countries. I argue that despite the fact that ISO developed the standards to prevent differing national environmental regulations from operating as trade barriers, the standards currently are acting as de facto trade barriers and could constitute technical barriers to trade under the TBT Agreement. Such challenges will likely be brought within the WTO.

Finally, Part V discusses proposals that would make the dual goals of ISO less illusory from the perspective of the developing world. Such proposals include financial assistance to developing countries so that they can attend ISO meetings, technological assistance to aid developing countries in implementing ISO 14001 within their own countries, and cooperation between the developing and developed world in establishing an effective coregulatory regime in the countries seeking to incorporate ISO 14001 into public law and policy. Part V also offers suggestions for making the standards more accountable to the public, thereby increasing

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22. *See* KRUT & GLECKMAN, *supra* note 10, at 95.

the likelihood that the standards will lead to sustainable development for both developed and developing countries. Such proposals include the involvement of nongovernmental organizations (NGOs), the adoption of a third-party certification requirement, and the use of an environmental effects registrar.

II. BACKGROUND: ORIGINS OF THE ISO 14000 SERIES

The International Organization for Standardization (ISO) was founded in 1946 in Geneva, Switzerland, as a specialized international organization whose purpose is to "promote the development of standardization and related activities in the world with a view to facilitating the international exchange of goods and services, and to developing cooperation in the sphere of intellectual, scientific, technological and economic activity."[23] "Until the 1970s, the ISO standards' technical nature focused primarily on products and ignored processes."[24] They only minimally addressed environmental issues by setting "uniform methodologies and equipment standards for testing toxicity or air pollution levels."[25] Five events influenced the ISO to develop the current ISO 14001 environmental management system standards. First, in 1979 the ISO embarked on the development of corporate management standards.[26] In 1989, the ISO published its 9000 series, which created a generic standard for quality management and quality assurance systems.[27] The ISO 9000 series was widely adopted by businesses worldwide and, although voluntary, became "a legal requirement to operate in some regulated markets . . . [and] a de facto condition for doing business in several industry sectors."[28] The success of the ISO 9000 series became a model for the ISO to develop and implement a specific set of standards for environmental management systems.[29] Second, the ISO was encouraged to develop a uniform set of environmental standards after witnessing the European Community's proliferation of environmental regulations including eco-auditing, labelling, and product-banning initiatives and fearing such regulations

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23. Elizabeth Pinckard, Comment, *ISO 14000*, 8 COLO. J. INT'L ENVTL. L. & POL'Y 423, 424 (1997).

24. *See id.* at 426.

25. Naomi Roht-Arriaza, *Shifting the Point of Regulation: The International Organization for Standardization and Global Lawmaking on Trade and the Environment*, 22 ECOLOGY L.Q. 479, 490 (1995).

26. *See* Pinckard, *supra* note 23, at 426.

27. *See id.*

28. *Id.* at 427.

29. Roht-Arriaza, *supra* note 25, at 491.

could become trade barriers.[30] Third, the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), together with the growing controversy over the role of trade agreements in environmental protection created the need for harmonization of the standards.[31] Fourth, as business groups and consumer policy groups became concerned that the growing number of uncoordinated corporate environmental quality programs and eco-labeling schemes could constitute trade barriers, they asked ISO to study them.[32] Finally, in preparing for the 1992 United Nations Conference on the Environment and Development (UNCED), conference representatives approached ISO and requested that it establish a uniform set of international environmental standards.[33] The Business Council for Sustainable Development also made a similar request.[34] The participating nations formally agreed at the conference itself that there was a need for international environmental standards.[35]

ISO's response was the creation of international environmental management system standards in the ISO 14000 and 14001 series. It is important to understand that these are standards that focus on how a company should operate in its production of a product. The standards require a company to implement a management system that in turn complies with a specific state's environmental laws. The ISO standards themselves do not contain substantive standards and/or specific safeguards for environmental protection. For example, they do not quantify pollution levels or establish minimum emissions levels. As discussed later in this article, the ISO is beginning to develop standards that are truly environmental in focus, such as its eco-labeling standards (ISO 14020). The initial response to the development of eco-labeling standards has not been favorable. Environmental organizations are raising the same concerns that were raised about ISO 14000, but are applying to the eco-labeling standards additional criticisms of lack of transparency and lack of substance.[36] Environmental organizations argue that eco-labels do not include adequate substantive standards or safeguards. Instead, what results is a form of "greenwashing," in which

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30. *Id.* at 490.
31. *Id.* at 491.
32. *Id.*
33. Taylor, *supra* note 5, at 516-17.
34. *See id.* at 517.
35. *See id.* at 516.
36. Samuel N. Lind, *Eco-Labels and International Trade Law: Avoiding Trade Violations While Regulating the Environment*, 8 INT'L LEGAL PERSP. 113, 150 (1996).

environmentally friendly labels will attract environmentally conscious customers but the environmentally harmful practices will still continue.[37]

In 1991, the ISO, in conjunction with the International Electrotechnical Commission, established the Strategic Advisory Group on Environment (SAGE) to "assess the need[s] for future international standardization work to promote worldwide application of the key elements embodied in the concept of sustainable industrial development."[38] Six working groups undertook this calling and recommended to the ISO that a technical committee (TC) be created to begin drafting the standards.[39] SAGE was dissolved in January 1993 upon creation of TC 207.[40]

A. The ISO 14000 Series

The first five ISO standards were adopted in mid-1996.[41] ISO 14000 is a generic set of "guidelines that . . . enable[s] any company in the world, irrespective of size, type, geography, or social or cultural diversity, to develop a quality environmental management system ("EMS")."[42] ISO 14001 sets forth the five general standards for a basic EMS system:

(1) [e]stablish senior management commitment to environmental management and promulgate a comprehensive environmental policy;
(2) [d]evelop targets and a program to implement the environmental priorities stated in the policy;
(3) [p]erform the activities necessary to achieve the objectives and targets, develop documents and records, and train employees in their environmental responsibilities;
(4) [m]onitor and measure on a regular basis the performance of the environmental management system;

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37. *See id.* at 118-19.
38. KRUT & GLECKMAN, *supra* note 10, at 29.
39. *See* Taylor, *supra* note 5, at 517.
40. *Id.*
41. The first five standards in the ISO 14000 series are:
(1) ISO 14001 "environmental management systems-specification with guidance for use,"
(2) ISO 14004 "environmental management systems-general guidelines on principles, systems and supporting techniques,"
(3) ISO 14010 "general principles on environmental auditing,"
(4) ISO 14011 "auditing of environmental management systems," and
(5) ISO 14012 "qualification criteria for auditors."
Clapp, *supra* note 6, at 299.
42. Murray, *supra* note 1, at 588.

(5) [r]eview the entire set of environmental management activities periodically to ensure continual improvement.[43]

ISO 14001 is by definition a process standard and not a product standard like its predecessor ISO 9000.[44] ISO 14001 requires only that a company's environmental policy include a commitment to abide by applicable environmental laws already in place.[45] The standards do not require a company to actually *comply* with environmental law. The distinction here is a mere commitment versus demonstrable compliance. Ultimately, the standards are only as strong as the country's existing environmental laws, regulations, and enforcement policy because ISO 14001 does not contain any additional performance specifications, such as numerical limits on environmental emissions or discharges.[46] By requiring conformance as opposed to compliance, without any criteria to access environmental performance, ISO 14001 is an EMS by which a company can improve environmental performance; however, improved environmental performance does not result simply from implementation of ISO 14001.[47] This distinction between conformance and compliance is not recognized by those advocating ISO 14001 as a solution to sustainable development.[48]

Although a company must undergo an external third-party audit to gain initial registration to the ISO 14000 series, subsequent internal audits can be carried out by either the company itself or an independent third party.[49] In addition, the company is not required to disclose the results of the internal audits to the public.[50] The only document that is publicly accessible is the company's environmental policy whose content is determined by the company without public influence or participation.[51] These aspects shield the organization from accountability to the public

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43. John Voorhees, *Global Environmental Solutions: Management Systems and Synchronicity*, 28 STETSON L. REV. 1155, 1166 (1999).

44. *See* Taylor, *supra* note 5, at 534.

45. *See* KRUT & GLECKMAN, *supra* note 10, at 96.

46. There is currently a debate on whether the standards promulgated by the ISO should be performance-oriented or process-oriented. Discussion of this debate is beyond the scope of this Article. This Article takes the position that in the developing world context where environmental regulation is lacking, it may be desirable for ISO standards to contain performance standards or at least improvement commitments.

47. *See* Taylor, *supra* note 5, at 534.

48. *See id.*

49. *See id.* at 535.

50. *See id.* at 539.

51. *See id.*

and decrease the legitimacy of the ISO 14001 standards as effective tools for increased environmental performance in the eyes of the public.[52]

B. The Drafting Process

ISO follows three guiding principles in the drafting of its standards: "consensus, encouragement of full participation, and voluntary adoption."[53] The organization attempts to achieve consensus by using a three step process to draft standards. First, an appointed portion of a subcommittee prepares a justification for a proposed standard and submits it to the larger committee for a vote.[54] The new standard is promulgated if a majority votes in favor of the proposal and at least five members declare a commitment to support the project actively.[55] Second, a group of experts prepares a working draft of the standard which is advanced to the next phase where controversies are worked out and a general consensus is reached among the experts.[56] Third, the working draft is formalized into a Committee Draft and distributed to the technical committee for commenting.[57] As many drafts as needed are prepared in order to reach a consensus among the members of the technical committee.[58] Then, for a period totaling six months, the technical committee's draft is circulated to all ISO member bodies for voting and commenting.[59] Official publication as an International Standard requires approval by a two-thirds majority of the participating members *and* disapproval by no more than one quarter of the members.[60]

III. WHY ISO 14001 CANNOT FULFILL THE ENVIRONMENTAL PROTECTION NEEDS OF THE DEVELOPING COUNTRIES

ISO 14001 implementation will not fulfill the specific environmental needs of the developing countries as articulated in Agenda 21, as well as those not expressly outlined in the document. This is because the developing countries did not fully participate in the drafting of the international standards due to their limited membership role, their small delegate representations at negotiation meetings, and their failure to

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52. *See id.* at 535.
53. Voorhees, *supra* note 43, at 1159.
54. *See id.*
55. *See id.*
56. *See id.*
57. *See id.*
58. *See id.*
59. *See id.*
60. *See id.*

provide secretariat support to the ISO. Thus, the standards have focused primarily on the concerns of the developed countries.[61] This is problematic given the fact that the ISO is engaged in global policy-making. Additionally, countries considering using ISO 14001 as a basis for coregulation will need to add five key elements present in other environmental management systems, such as the European Union's voluntary Eco-Management and Audit Scheme (EMAS),[62] that provide environmental protection assurances if sustainable development is to become a reality.

A. Developing Country Participation in the Development of the ISO 14000 Series

ISO claims that one of its basic principles in the development of its standards is the "encouragement of full participation."[63] Full participation in the ISO organization can be defined in three ways: (1) class of membership, (2) the number of delegates attending negotiating meetings, and (3) the extent to which ISO's key decision-making bodies such as the technical committees, subcommittees, and working groups reflect economic or geographic balances.[64] Based on these three measures, developing countries were not full participants in the drafting of the ISO 14000 series of standards.

There are three classes of membership in the ISO: full members, correspondent members, and subscriber members.[65] As of 1998, there were eighty full members, twenty-four correspondent members, and eight subscriber members.[66] Full members are national, standard-setting bodies that can be participating members in TCs.[67] Full members can vote on standards, attend TC meetings, and receive ISO documents.[68] Correspondent members are standards-related organizations from countries that lack an official national standard-setting body.[69] Correspondent members are observers in negotiations and can attend TC meetings and collect documents.[70] Subscriber members are organizations

61. *See* Clapp, *supra* note 6, at 306.
62. KRUT & GLECKMAN, *supra* note 10, at 95.
63. Voorhees, *supra* note 43, at 1159.
64. KRUT & GLECKMAN, *supra* note 10, at 43-45.
65. *See id.* at 43.
66. *See* Clapp, *supra* note 6, at 301.
67. *See* KRUT & GLECKMAN, *supra* note 10, at 43.
68. *See id.*
69. *See id.*
70. *Id.*

who represent economically small countries.[71] They have the right to be informed of ISO developments that may be of interest to them, but they cannot attend TC meetings nor access ISO documents.[72] Correspondent and subscriber members have no voting rights.[73]

While "[a]ll developed nations have standard-setting bodies that are members of the ISO," only fifty-three percent of developing countries are represented in any of the three membership categories.[74] Only fifty-eight percent of developing countries' representatives have full participation in the standard-setting negotiations.[75] Almost "all of the correspondent and subscriber members are from developing countries."[76] Only twenty-six percent have institutions participating in TC 207 and only seventeen percent have voting privileges.[77] In contrast, all of the national standard-setting institutions of the twenty-four developed countries are full members and over ninety percent are voting members of TC 207.[78]

A second important measure of participation in standards development is the number of delegates attending meetings of the ISO because five or six negotiating sessions may occur simultaneously.[79] "Only two developing countries, South Africa and Cuba, had representatives at the first TC 207 meeting in 1993."[80] Two meetings were of great importance during the development of the 1996 series of standards: the Oslo, Norway, meeting in June 1995 when the postal vote to move ISO 14001 to a draft international standard was announced[81] and the Rio, Brazil, meeting in June 1996 "when the ISO 14001 and several other standards were [officially] adopted as international standards."[82] At the Oslo meeting, ninety-two percent of developed nations were present and voting, while only seventeen percent of developing countries were present and voting.[83] Of the case study countries, China, Zimbabwe, Indonesia, and Brazil were full members of ISO, participating members in TC 207, and sent delegates to both meetings.[84] However, their

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71. *See id.*
72. *See id.*
73. *See* Clapp, *supra* note 6, at 301.
74. KRUT & GLECKMAN, *supra* note 10, at 43.
75. *See id.* at 45.
76. Clapp, *supra* note 6, at 301.
77. *See* KRUT & GLECKMAN, *supra* note 10, at 45.
78. *See id.* at 44.
79. *See id.* at 45.
80. Clapp, *supra* note 6, at 306.
81. *See* KRUT & GLECKMAN, *supra* note 10, at 42.
82. *Id.*
83. *See id.*
84. *See id.* at 45.

delegation sizes, as well as the delegation sizes of developing countries as a group, were much smaller than developed countries.[85] In Rio, three-fourths of the participants from the developing world came from only four countries: Indonesia, Argentina, Korea, and Brazil.[86] The small size of the developing country delegations makes it extremely difficult for them to participate in the twenty-five working groups and subcommittees of TC 207.[87] The disparity in delegation sizes has led to the developed countries' domination of the standard-setting process.[88]

In addition to the key meetings at Oslo and Rio, the ISO held numerous official meetings all over the world from 1993-1996 in countries such as France, Canada, the Netherlands, and the United States, as well as informal meetings on an ad hoc basis for further discussion and information exchange.[89] In order to participate effectively in ISO standard-setting, delegates from the developing world need to attend all meetings, a requirement that is often financially impossible.[90]

The low level of developing country participation is primarily a result of the substantial costs of attending frequent meetings borne by each individual participant.[91] Although the ISO established the Developing Country Committee (DEVCO) to help finance developing country attendance at the meetings, this committee has very modest resources.[92] It is capable of "fund[ing] only two representatives per country, generally one from a standards-setting organization, if it exists, and one from a government environmental agency or an environmental NGO."[93] DEVCO funded twenty-two representatives from developing countries in 1995 and twenty-three in 1996, largely as a result of financial assistance from the Netherlands and Finland channeled through the committee.[94]

Third, the national standard-setting bodies of developing countries are underrepresented in key decision-making bodies of the ISO, such as the technical committees, the subcommittees of the technical committees; and the working groups of a subcommittee limit secretariat

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85. *See id.* Statistics were not available for South Africa.
86. *Id.*
87. Clapp, *supra* note 6, at 307.
88. *See* Naomi Roht-Arriaza, *Developing Countries, Regional Organizations and the ISO 14001 Environmental Management Standard*, 9 GEO. INT'L ENVTL. L. REV. 583, 586 (1997).
89. *See* KRUT & GLECKMAN, *supra* note 10, at 57.
90. *See id.*
91. *See* Clapp, *supra* note 6, at 307.
92. *See* KRUT & GLECKMAN, *supra* note 10, at 42.
93. Clapp, *supra* note 6, at 307.
94. *See id.*

support they provide to the organization.[95] The ISO general secretariat is located in Geneva and has a 170-person staff.[96] The national standard-setting bodies provide the secretariat support for each technical committee.[97] According to the ISO, the contributed labor of these national bodies is three times that of ISO's primary staff.[98] The member body, when working as staff to a technical committee, is required by its rules of procedure to "maintain strict neutrality and distinguish sharply between proposals which it makes as a member body and its capacity as secretariat."[99] In 1996, the United States, the United Kingdom, Germany, and France provided a total of 66.9% of the secretarial support staff to TCs and working groups.[100] In the same year, developing countries provided a total of 2.6% of the support for such bodies.[101]

The limited secretariat support offered by the developing world results in industry domination of key staff positions in the working groups. "For the ISO 14000 series, . . . all the TC 207 subcommittee [chairs] and the conveners of the TC 207 Working Groups c[a]me from industrialized countries."[102] In addition, more than half of the TC 207 working-group chairs came from multinational corporations or consulting firms.[103] These positions do not rotate, enabling the working-group chairs to influence what standards are promulgated and the contents of those standards in a way that gives a competitive advantage to that working group chairs' specific country or corporation.[104] This is in spite of the rules requiring neutrality in the exercise of a staff position by a member body.[105]

In addition to the developed country and industry domination of the drafting process, developing countries, as a whole, noted several procedural flaws with the drafting process. In particular, the third stage of the drafting process, the Technical Committee stage, which takes place primarily by mail contains many flaws.[106] Key concepts and the structure of the final international standard are developed at this stage.[107] The first

95. *See* KRUT & GLECKMAN, *supra* note 10, at 45-47.
96. *See id.* at 47.
97. *Id.*
98. *See id.*
99. *Id.*
100. *Id.*
101. *Id.*
102. *Id.* at 54.
103. *See id.* at 55.
104. *Id.*
105. *See id.* at 47.
106. *See id.* at 55-57.
107. *Id.*

flaw is that almost all of the correspondence was written in English.[108] The extremely technical nature of the standards makes understanding them difficult even for those who speak English as their first language.[109] Consequently, it is essential that delegates from the developing world speak fluent English.[110] Furthermore, officials from the developing countries that sat on TC 207 observed that dissemination of information to them was extremely slow and as a result, there was insufficient time to provide commentary.[111] Finally, delegates are expected to monitor the drafts both in sessions and in the mail, to track changes made to the standards, and to review the issues to be discussed at the next meeting.[112] Such a precondition imposes a problem for developing countries with a limited number of delegates.

B. ISO 14001 and the International Sustainable Development Agenda

While there is a lot of concern about environmental problems that plague the developing world, there is also recognition of the serious difficulties involved in developing and enforcing environmental regulations. The shortage of scientific personnel in developing countries makes it difficult to develop standards, and the scarcity of resources in these countries undermines their ability to enforce any standards that are developed.[113] For example, hazardous waste generation is a key concern for developing countries engaged in rapid industrialization with an eye towards exportation.[114] These resource concerns are reflected in Agenda 21, which was signed by 178 countries at the UNCED.[115] Agenda 21 views the ultimate goal of reducing hazardous waste as an international effort calling on all countries to reduce the generation of hazardous wastes through the promotion of environmentally sound technology transfer, specifically from the developed world to the developing world.[116] Article 20.13(e) states: "Governments of developed countries should promote the transfer of environmentally sound technologies and know-

108. *See id.*
109. *See id.*
110. *Id.* at 57.
111. *See id.* at 55.
112. *Id.* at 57.
113. *See id.* at 61.
114. *See* Clapp, *supra* note 6, at 305.
115. United Nations Conference on Environment and Development, Agenda 21 (June 1992), *available at* http://www.un.org/esa/sustdev/documents/agenda21/English/agenda21toc.htm (last visited Nov. 24, 2003) [hereinafter Agenda 21].
116. *See* Clapp, *supra* note 6, at 305.

how on clean technologies and low-waste production to developing countries. . . ."[117]

The Rio Declaration on Environment and Development also echoes the theme of international cooperation, as does the Johannesburg Declaration on Sustainable Development. Principal 9 of the Rio Declaration provides that "[s]tates should cooperate to strengthen endogenous capacity-building for sustainable development . . . by enhancing the development, adaptation, diffusion and transfer of technologies, including new innovative technologies."[118] According to Principal 17 of the Johannesburg Declaration, "we will work together to help one another to . . . ensure capacity-building, use modern technology . . . and make sure that there is technology transfer, human resource development, education and training."[119] Bilateral and multilateral development-assistance agencies are called upon to substantially increase funding for cleaner technology transfer to the developing world.[120] However, Agenda 21 not only calls on governments to achieve the goal, but also asks industry to cooperate, particularly through the establishment of environmental management systems: "Industry should establish environmental management systems, including environmental auditing of its production or distribution sites, in order to identify where the installation of cleaner production methods is needed."[121] Article 20.27(d) states that governments, with the cooperation of the United Nations, should "[p]romote the training of labour [and] industrial management . . . on technologies to minimize and manage hazardous wastes in an environmentally sound manner."[122]

In its encouragement of the use of environmental management systems, Agenda 21 also sees an important role for voluntary environmental measures taken by industry to meet the goals of cleaner production and waste reduction.[123] Transnational corporations and other

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117. Agenda 21, *supra* note 115, ch. 20.13(e).

118. United Nations Conference on Environment and Development, 1992 Rio Declaration on Environment and Development Principle 10, *available at* http://www.unep.org/unep/rio.htm (last visited Nov. 24, 2003) [hereinafter UNCED Principle 10].

119. Johannesburg Declaration on Sustainable Development, *in* REPORT OF THE WORLD SUMMIT ON SUSTAINABLE DEVELOPMENT 1, U.N. Doc. A/CONF.199/20, U.N. (Sept. 4, 2002), *available at* http://www.un.org/summit/html/documents.html (last visited Jan. 24, 2004) [hereinafter Johannesburg Declaration].

120. *See* Agenda 21, *supra* note 115, ch. 20.19(f).

121. *Id.* ch. 20.13(i).

122. *Id.* ch. 20.27(d).

123. *See* Clapp, *supra* note 6, at 305; *see also* Johannesburg Declaration, *supra* note 119, principle 26 ("[T]here is a need for private sector corporations to enforce corporate accountability . . . within a transparent and stable regulatory environment.").

large-scale enterprises are asked to "adopt standards of operation with reference to hazardous waste generation and disposal that are equivalent to or no less stringent than standards in the country of origin."[124]

ISO 14001 was viewed with great optimism by the developing world because it offered the potential to fulfill the need for what Agenda 21, the Rio Declaration, and the Johannesburg Declaration believed would achieve sustainable development through implementation by private industry. ISO 14001 became the solution to the dilemma of how developing countries could achieve sustainable development in an arena of scarce political oversight and infrastructure. However, ISO 14001 cannot meet these goals for several reasons that result from the underrepresentation of developing countries in the drafting of the standards. A key theme running throughout Agenda 21, the Rio Declaration, and the Johannesburg Declaration is the importance of transparency in the decision-making process. All countries must be included in the development of international environmental law standards. Article 23.2 of Agenda 21 states that "[o]ne of the fundamental pre-requisites for . . . sustainable development is broad based public participation in decision-making."[125] According to Principal 10 of the Rio Declaration: "Environmental issues are best handled with the participation of all concerned citizens, at the relevant level."[126] Principal 23 of the Johannesburg Declaration states that "sustainable development requires . . . broad participation in policy formation, decision-making, and implementation at all levels."[127]

However, the ISO standards do not reflect the importance of broad, global participation. First, the "standards do not even mention existing international environmental treaties [such as Agenda 21] as being a concern for companies."[128] The draft report, entitled *ISO 14001: International Environmental Management Systems Standard, Five Key Questions for Developing Country Officials*, recognized that ISO 14001 "does not reinforce existing intergovernmental environmental agree-

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124. Agenda 21, *supra* note 115, ch. 20.29.

125. *Id.* ch. 23.2.

126. UNCED Principle 10, *supra* note 118.

127. Johannesburg Declaration, *supra* note 119, Principle 23; *see also* ELENA PETKOVA ET AL., CLOSING THE GAP: INFORMATION, PARTICIPATION, AND JUSTICE IN DECISION-MAKING FOR THE ENVIRONMENT 11 (2002) (noting that Principle 10 of the Rio Declaration requires governments to provide access to environmental information, redress, and remedy: the "three 'access principles' [that] represent fundamental norms of transparent, equitable, and accountable decision-making that are the basis for sound environmental governance").

128. Clapp, *supra* note 6, at 308.

ments."[129] Second, ISO 14001 is based on environmental management, and not performance, criteria. "The standards do not call for any specific reduction in hazardous waste generation and [companies] are not required to report emissions levels."[130] Firms are only required to ensure that management systems are dedicated to meeting the existing environmental laws in the country of operation and that they are committed to "continual improvement" and the "prevention of pollution."[131] However, the term "prevention of pollution" can be misleading. It does not mean the same as "pollution prevention."[132] "Prevention of pollution" was inserted by the U.S. delegation.[133] The ISO's definition includes processes to control pollution, such as recycling treatment, among others.[134] According to the Environmental Protection Agency (EPA) and many other experts, neither pollution control, after-the-fact treatments, nor off-site recycling is really "prevention" that focuses on changes in process, practices, and materials to avoid introducing pollutants into the environment entirely.[135]

Third, the ISO standards fail to hold companies accountable to the public due to the lack of a third-party certification requirement and the absence of an environmental effects registrar. The United States objected strongly to a third-party certification requirement "because of its approach to environmental regulation and its fears of increased liability . . . [, and] the U.S. objections . . . led to the approval of the 'self-certification' concept."[136] The developing countries also objected to a third-party certification requirement due to its high cost and the fact that few companies in developing countries have the ability to employ independent auditors.[137] The U.S. delegation also rejected proposals for having an environmental effects registrar as required by British Standards 7750 (BS 7750).[138] BS 7750 was promulgated by the British Standards Institution to document the direct and indirect effects on the environment

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129. Marlon Allen, *Report Says Developing Nations See ISO 14000 As Business Condition, Way to Expand Markets*, 19 INT'L ENV'T REP., CURRENT REP. (BNA) No. 19, at 812 (Sept. 18, 1996).

130. Clapp, *supra* note 6, at 308.

131. *Id.* at 309.

132. Cheryl Hogue, *ISO 14001 Should Not Be Required by Law or Regulation, Attorney Says*, 19 INTL. ENV'T REP., CURRENT REP. (BNA) No. 4, at 122 (Feb. 21, 1996).

133. *See* Murray, *supra* note 1, at 592.

134. *See id.*

135. *See id.*

136. *Id.* at 597.

137. *Id.*

138. *See id.* at 595.

of the organization's activities.[139] This document is accessible to the public under BS 7750.[140] The United States feared that such a document could be readily discovered by regulators and act as a blueprint for litigation.[141] As a result, the standards do not refer to an environmental effects registrar, but instead reference the development of a procedure that will enable a company to determine the environmental effects of its specific activities.[142] The shaping of the standards by the United States resulted in one of the standards' biggest flaws—lack of public accountability. This illustrates the danger of having standards that apply internationally but were shaped by the interests of the few.

Finally, the standards fail to provide for the transfer of cleaner technologies to developing countries as mandated under Agenda 21 and the Rio and Johannesburg Declarations.[143]

ISO 14001 not only fails to address the environmental concerns of the developing nations outlined in Agenda 21, but also ignores other specific concerns as well. Concerns of particular importance to the developing world, such as the loss of habitat, biodiversity, and desertification, are lumped together in a catch-all category of "environmental impacts" rather than addressed separately.[144] In addition, the assessment, management, and auditing procedures appear on their face to be location-neutral, "but to the extent [that] they list possible environmental impacts or attempt to develop life-cycle assessment criteria, the vantage point is [from] a densely populated, highly industrialized society."[145]

C. Coregulation

In spite of their limited involvement in the drafting of the standards, South Africa, China, Zimbabwe, South Korea, and potentially Indonesia, are incorporating ISO 14001 into environmental policymaking. The integration of ISO 14001 into public law and policy is highly attractive to developing countries who must reconcile development concerns and conservation of the environment with scarce governmental resources. Coregulatory policy instruments are advantageous because they use industry's knowledge and resources, thus reducing the governments'

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139. *See id.*
140. *See id.*
141. *Id.*
142. *Id.*
143. *See* Clapp, *supra* note 6, at 309-10.
144. *See* Roht-Arriaza, *supra* note 25, at 528.
145. *Id.*

expense in having to collect the information, develop the information into regulations, and then monitor the effects, often without an appropriate level of industrial and process experience.[146] "Scarce government resources (such as manpower, technical skills and financial assets) . . . are particularly pertinent in the context of developing countries where there are numerous pressing social concerns coupled with significant government resource constraints."[147]

The interest in integrating ISO 14001 into public law and policy is also evidenced by countries of the developed world. Regulators "in developed countries have [discovered] that direct regulatory controls provide diminishing returns and thus are looking for more flexible policy options that emphasize incentives for coregulation."[148] In Canada, a court case involving Prospect Chemical Company (PCC) is being viewed as precedent for using ISO 14001 as a coregulation tool.[149] An Alberta Provincial Court ordered PCC, a company that manufactures mining reagents, to become ISO 14001 certified after it was found to be in violation of its operating license for sulfur emissions.[150] The company had to post a $40,000 Canadian security bond to guarantee compliance with the judgment in the requisite two-year time frame.[151] "At the time of the violation, [PCC] did not have . . . an environmental management system in place nor did it participate in the Canadian Chemical Manufacturer's Association Responsible Care Programme (CCPA)."[152] It was the company's second violation in two years.[153] The maximum fine for such an offense was increased from $40,000 to $500,000 in 1993.[154] The judge's rationale for forgoing the fine and ordering ISO certification was based on the existence of several mitigating factors, such as PCC's commitment to compliance, its reporting of offending emissions without delay, its certification to CCPA as of the time of judgment, and its rewriting of standard operating procedure in order to take account of the

146. *See* Jonathan Hanks, Group Environmental Advisor AECI Limited, Johannesburg, South Africa, *Sharing Responsibility: Co-Regulatory Policy Instruments As a Means of Achieving Industrial Sustainable Development in Developing Countries*, at 2, *available at* http:www.environment.gov.za/cleaner_production/papers/pol1.html (last visited Mar. 7, 2000).

147. *Id.*

148. KRUT & GLECKMAN, *supra* note 10, at 93.

149. *See id.* at 94.

150. *See id.*

151. *See id.*

152. *Id.*

153. *See id.*

154. *See id.*

problem in question.[155] Implementation of ISO 14001 would cost the company between $100,000 and $200,000 Canadian.[156]

This case is important to developing countries because it could establish precedent on how ISO can be used as a basis for coregulation in their own countries. The case, in effect, transforms ISO 14001 into a legal standard representing the "due diligence" and "reasonable care" expectations of the Alberta court.[157] The case could also be seen as replacing governmental enforcement of environmental regulations with ISO 14001 certification. However, this interpretation was expressly refuted by the Canadian Standards Association and lead office of TC 207: "This case is not a blanket precedent for substituting ISO 14001 certification for a fine, but as a precedent for alternative sentencing where the company has shown good faith in actively attempting to improve its performance by improving management systems."[158]

In spite of these assertions, neither Canada, nor the developed world as a whole, should serve as a model for developing countries. Effective "[c]o-regulation cannot be achieved in the absence of regulation and enforceable sanctions."[159] Regulators in developing countries with non-existent or ineffective environmental enforcement policies, attempting to resolve the tension between economic development and environmental conservation, cannot use ISO in the same way as countries like Canada that have higher compliance requirements and less strain on governmental resources. Although advocates of ISO 14001 claim that it will bring regulator relief, regulators in the developed world are not using it alone.[160] In order for both self-regulation and coregulatory instruments to be a viable option for improved environmental performance, it is essential that various incentives are in place to ensure that industry wants to adopt the standards. Examples of such incentives include the threat of strict government sanction, the requirement to disclose environmental impacts, and general public pressure.[161] As an effective basis for coregulation, ISO 14001 must be accompanied by five key elements considered to act as environmental protection assurances thereby converting ISO 14001 into ISO 14001 Plus: "(1) compliance, (2) measurable improvements in environmental performance, (3) third-party verification of the audit, (4) public reporting, and (5) public

155. *Id.*
156. *Id.*
157. *See id.*
158. *Id.* at 94-95.
159. *Id.* at 95.
160. *Id.*
161. *See* Hanks, *supra* note 146, at 7.

participation."[162] These elements are absent from ISO 14001.[163] ISO 14001 Plus, itself, must also operate in an arena of strong environmental legislation.[164]

The United States and The North American Commission on Environmental Cooperation (CEC) have explicitly rejected the use of ISO 14001 as a means to reduce government oversight. The United States Department of Justice has stated "ISO 14001 is not a sufficient guarantee of improved environmental performance."[165] Although the EPA is examining the role that environmental auditing with standards such as ISO 14001 can play at regulated facilities,[166] EPA's current policy statement provides that it "will not promise to forgo inspections, reduce enforcement responses, or offer other incentives in exchange for implementation of environmental auditing or other sound environmental management practices."[167]

The CEC is "an organization established as a side commission to the North American Free Trade Agreement" (NAFTA) that "makes recommendations for environmental management in an area that includes both developed and developing countries."[168] According to the CEC: "Governments must retain the primary role in establishing environmental standards and verifying and enforcing compliance with laws and regulation . . . ISO 14001 [does] not constitute or guarantee compliance with legal requirements and will not in any way prevent the governments from taking enforcement action where appropriate."[169] ISO 14001 cannot be a substitute for environmental law. The disconnect between legal systems and the environmental management system is underlined by the fact that organizations have been convicted of violating environmental laws but are certified as conforming to ISO 14001.[170]

The limitations of ISO 14001, discussed above, are general ones affecting developing countries as a group. The next Part discusses the motivation behind implementation of ISO 14001 in specific countries,

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162. *See* KRUT & GLECKMAN, *supra* note 10, at 95.

163. *Id.*

164. *Id.*

165. *Id.*

166. *See* Robert R. Tucker & Janet Kasper, *Pressures for Change in Environmental Auditing and in the Role of The Internal Auditor*, 10 J. OF MANAGERIAL ISSUES 8 (1998).

167. Bertram C. Frey & Karry A. Johnson, EPA & Envtl. Law Inst., *Environmental Auditing Since EPA's 1986 Audit Policy*, (Jan. 2002), *at* http://www.epa.gov/regions/orc/articles/env-audits.htm (last visited Jan. 24, 2004).

168. KRUT & GLECKMAN, *supra* note 10, at 93.

169. *Id.*

170. *See* Stepan Wood, *Environmental Management Systems and Public Authority in Canada: Rethinking Environmental Governance*, 10 BUFF. ENVTL. L.J. 129, 159 (2003).

how ISO is functioning at the domestic level, and the specific problems, as well as the opportunities, ISO presents for each country.

IV. CASE STUDIES: INITIAL RESPONSES FROM DEVELOPING NATIONS TO ISO 14001

The following is a case study analysis of how ISO is being implemented in South Africa, China, Zimbabwe, Indonesia, South Korea, and Brazil. It should be noted that it is still difficult to know how ISO standards will work in practice given their novelty and the fact that only a few countries of the developing world are actively implementing the standards into practice. However, the case studies are valuable because they illustrate how ISO is viewed as the answer to environmental problems by a wide range of institutions with vastly different motivations and agendas, such as state governments, industry, and nongovernmental organizations. These different groups collectively view ISO 14001 as a way to achieve their own separate goals. Environmental organizations see ISO 14001 as a way to enforce environmental standards with limited government resources. Businesses see certification as necessary to gain access to the international marketplace. In spite of this collective optimism for what ISO 14001 can achieve for global environmental protection and international trade, early findings of how ISO 14001 is operating in practice give cause for concern. These preliminary findings are discussed below.

A. South Africa

In a survey of local industry conducted in 1997, the highest ranked reason for companies seeking ISO certification in South Africa was "the need to access and maintain international markets after the lifting of [trade] sanctions" due to apartheid.[171] Other less cited reasons included a desire "to be recognised internationally as leaders in safety, health, and the environment, as well as to boost the [public] image of the companies."[172] "The South African Bureau of Standards (SABS) [established] a program whereby South African [industry] may register and be certified for compliance with ISO environmental . . . standards."[173] Along with SABS, South Africa has a national laboratory accreditation

171. H. Rukato, Group for Environmental Monitoring in Johannesburg, *The Implications of ISO 14001 on the South African Industry* 7 (1999), *at* http://www.tips.org/za/research/item.asp?ID=198 (last visited Mar. 6, 2004).

172. *Id.* at 9.

173. Jennifer A. Storm, *South Africa's New Environmental Policies: Making Green the New Dominant Color*, 9 GEO. INT'L ENVTL. L. REV. 641, 655 (1997).

system known as the South African National Accreditation System (SANAS). SANAS is recognized by the South African Government as the single national accreditation body that gives formal recognition to laboratories, certification bodies, inspection bodies, proficiency test scheme providers and good laboratory practice test facilities who are competent to carry out specific tasks.[174] SANAS is currently acting to accredit the environmental management systems of organizations to ISO 14001.[175] The president of the SABS, Dr. Jean duPlessis, stated that the SABS program was implemented as a direct result of pressure exerted from the international marketplace: "Over the past few years local companies have been experiencing increasing pressure from overseas clients to ensure that their environmental management programmes meet international criteria. This situation has resulted in a great demand for the implementation of the internationally recognized environmental management standards."[176] Although the ISO warns that ISO 14001 should not be used as a technical barrier to trade, ninety-eight percent of participating firms in the survey thought that the standard "has the potential to be used as a trade barrier."[177] These companies define "trade barrier" as "a situation whereby their products failed to successfully compete on the international market for environmental reasons."[178] Therefore, ISO certification is viewed by South African industry as a precautionary measure.[179]

The United Nations Council on Trade and Development (UNCTD) cites a second reason for company certification in South Africa: the prevention of possible litigation.[180] The South African Constitution of 1996 contains a provision in its Bill of Rights stating that "[e]veryone has the right . . . (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that—(i) prevent pollution and ecological degradation; (ii) promote conservation; and (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable

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174. *See* DEPARTMENT OF ENVIRONMENTAL AFFAIRS & TOURISM: COMPILATION OF THE SOUTH AFRICAN NATIONAL CHEMICALS PROFILE 9-5 (Apr. 2003), *at* http://www.environment.gov.2a/documents/documents/2003jun9_1/chapt-09_draft2.doc (last visited Jan. 24, 2004).

175. *Id.*

176. Storm, *supra* note 173, at 655-56.

177. *See* Rukato, *supra* note 171, at 15.

178. *Id.* at 9 n.3.

179. *See id.* at 9.

180. *See Environmental Management Standards Particularly the ISO 14000 Series: Trade and Investment Impacts on Developing Countries Report by the UNCTD Secretariat*, U.N. Conference on Trade and Development, Agenda Item 3, at 15, U.N. Doc. TD/B/Com.1/EM. 4/2 (1997) [hereinafter *Environmental Management Standards*].

economic and social development."[181] Prior to the new constitution's adoption, the citizens of South Africa did not have standing to sue the government for state actions that harmed the environment.[182] Now that the right to a protected environment is an individual right, it grants standing to any citizen to sue the government for state action which either infringes upon the right or fails to protect the right.[183] The government cannot legally allow harm to the environment and can enforce its environmental regulations through litigation against agencies or corporations that are not in compliance.[184]

The South African government plans to use ISO 14001 in its new environmental policies as a means to strengthen its current environmental regulatory structure.[185] The new environmental polices will include ISO 14001, regulation and enforcement, and economic instruments.[186] In the absence of a strong environmental regulatory system, South Africa has traditionally relied on industry to self-regulate.[187] Excessive fragmentation exists within the environmental laws with regard to subject matter and administration, with a number of different agencies having responsibility for pollution control without effective coordination.[188] In addition, there is a lack of sufficient deterrents because fines and sentencing provisions are very lenient in comparison to international standards.[189] As of June 1999, industry had very little incentive "to improve [its] environmental performance given the lack of clear specification with regards to pollution reduction and Best Practicable Means, by regulatory authorities," and "the erratic enforcement and monitoring of the regulation that is in place."[190] South Africa is aware of these problems and plans to address them as part of its

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181. S. AFR. CONST. ch. 2, § 24; *see also* Storm, *supra* note 173, at 650.

182. Storm, *supra* note 173, at 650.

183. *See id.*

184. *See id.*

185. *See* KRUT & GLECKMAN, *supra* note 10, at 107.

186. *See id.*

187. *Id.*

188. *See* Hanks, *supra* note 146, at 13. The government did pass the National Environmental Management Act on November 19, 1998. One of its pillars is "quality in environmental decision making" with established procedures for improving the quality and consistency of decisions that may have a significant effect on the environment. *Preamble of National Environmental Management Act 107 of 1998*, *at* http://www.elaw.org/resources/text.asp?ID=797 (last visited Jan. 29, 2004).

189. *See* Hanks, *supra* note 146, at 13.

190. TRADE & INDUS. STRATEGIES AND INT'L INST. FOR SUSTAINABLE DEV., TRADE AND ENVIRONMENT: SOUTH AFRICAN CASE-STUDIES 41 (June 1999), *at* http://www.tips.org.za/research/papers/old/331.pdf (last visited Jan. 25, 2004).

current environmental reform process.[191] However, the underlying cause of ineffective implementation, a lack of institutional capacity both at the national and provincial level, is likely to remain a problem for some time.[192]

In spite of the deficiencies in environmental legislation and enforcement, ISO 14001 is still viewed as a tool to achieve improved environmental performance for the country. Diane Soutter, a private consultant and South Africa's representative to the ISO/TC 207 subcommittee, stated that ISO 14001 "cannot but have environmental advantage" but recognized that the ideal path for South Africa to follow would be to use ISO as a basis for coregulation.[193]

In order for ISO 14001 to have any "environmental advantage" in South Africa or to meet the expectations of SAEP, the South African government must implement ISO 14001 Plus and correct its legislative fragmentation. If South Africa fails to implement ISO 14001 Plus and simply incorporates ISO 14001 as a tool in its regulatory regime as a means to rollback enforcement, the government could face constitutional challenges on the basis that the government implementation of ISO 14001 fails to protect the right to a clean environment in accordance with the country's Bill of Rights.

B. China

China adopted the ISO 14000 series as official state policy on April 1, 1997.[194] The primary motivation for adoption of ISO by China is that it allows the country to bolster its domestic environmental regulatory regime without sacrificing economic growth.[195] In a statement issued December 14, 1998, China's National Environmental Protection Agency (NEPA) stated that "adoption of ISO 14000 benefits not only the well-coordinated development of [the] economy and [the] environment but also helps to strengthen the government's supervision of enterprises' environmental management."[196] According to Xie Zhenhua, NEPA's chief administrator, "implementing ISO 14000 will be conducive to the sound

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191. *See* Hanks, *supra* note 146, at 13.

192. *See id.*

193. *See* KRUT & GLECKMAN, *supra* note 10, at 107.

194. *ISO 14000 Series to Be Adopted April 1 as State Policy in China*, 20 INT'L ENV'T REP., CURRENT REP. (BNA) No. 5, at 198 (Mar. 5, 1997).

195. *See* Mary Lynne Calkins, *Make Friends First, Certify Later: China and ISO 14000*, 9 GEO. INTL. ENVTL. L. REV. 609, 616 (1997).

196. *Adherence to ISO 14000 Standards to be Monitored by Auditors' Board*, 21 INT'L. ENV'T REP., CURRENT REP. (BNA) No. 1, at 17 (Jan. 7, 1998) [hereinafter *Adherence to ISO 14000*].

growth of China's economy."[197] One author suggests that China only takes "environmental steps if it sees a capitalist advantage."[198] The economic benefits to be derived from ISO 14000 participation, such as the "greater marketability of Chinese products, improved and streamlined raw material consumption, reduced cost of waste management, reduced liabilities" in the future and thus greater profit for Chinese people, mesh with Chinese economic philosophy.[199] Chinese industry is seeking certification due to the requirements of the global marketplace and regulatory pressure.[200]

Chinese officials view their biggest challenge as the effective and consistent implementation and enforcement of its more than a dozen major environmental statutes, several of which have been amended to be stricter and applicable to a more diverse range of actions.[201] The government lacks sufficient resources to inspect and monitor individual companies to ensure compliance with existing law.[202] ISO 14000 is expected to help officials in this process by encouraging industry to commit to compliance with applicable regulatory requirements.[203] NEPA has proposed that all state-owned industries, the nation's worst polluters, comply with ISO by the year 2000, but has failed to detail policies to promote compliance.[204] The State Council, China's federal cabinet, appointed a committee representing thirty government agencies and ministries to supervise introduction of the ISO 14000 series.[205] According to the official Xinhua news agency, China will "develop a set of preferential policies to encourage businesses, societies, work units, and other organizations to establish environmental control systems in keeping with international standards."[206]

Scholarship states that China plans to go beyond mere promotion and encouragement of ISO adoption and will require companies to become ISO 14001 certified.[207] This position has been refuted by

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197. *Chinese Officials Aim to Expand Use of ISO 14000 Among Worst Polluters*, 20 INT'L. ENV'T REP., CURRENT REP. (BNA) No. 10, at 481 (May 14, 1997) [hereinafter *Chinese Officials Aims to Expand*].

198. Calkins, *supra* note 195, at 616.

199. *Id.*

200. *See* Lester Ross, *China: Environmental Protection, Domestic Policy Trends, Patterns of Participation in Regimes and Compliance with International Norms*, 156 CHINA Q. 809, 829 (1998).

201. *See id.* at 826-27

202. *See* Calkins, *supra* note 195, at 617.

203. *See generally* Ross, *supra* note 200, at 810-30.

204. *See Adherence to ISO 14000*, *supra* note 196, at 17.

205. *Chinese Officials Aim to Expand*, *supra* note 197, at 481.

206. *Adherence to ISO 14000*, *supra* note 196, at 17.

207. *See* Calkins, *supra* note 195, at 616.

Professor Minguyuan Wang, an environmental law expert in China.[208] Professor Wang phoned an official at NEPA and confirmed that the agency is expecting, and proposing, that industry comply with the standards but is not requiring them to do so.[209]

The ISO series of standards may be susceptible to two types of legal challenges in China: a constitutional challenge and a challenge under Chinese Administrative Litigation Law. Article 41 of the Constitution of the People's Republic of China states that "[c]itizens have the right to make to relevant state organs complaints and charges against, or exposures of, violation of the law or dereliction of duty by any state organ or functionary . . . . Citizens who have suffered losses through infringement of their civic rights by any state organ or functionary have the right to compensation in accordance with the law."[210] According to Professor Zhenmin Wang, Vice Dean and Associate Professor at Tsinguhua University Law School in Beijing and Fulbright Visiting Scholar at Harvard University: "It is obvious that a citizen [under Article 41] can challenge the government if it fails to fulfill its constitutional responsibility."[211] Moreover, the government has the responsibility under Article 26 of the Constitution to maintain a clean environment for all its citizens: "The state protects and improves the living environment and the ecological environment, and prevents and remedies pollution and other public hazards."[212] According to Professor Wang: "The government has the responsibility to maintain a clean environment for its citizens. If it fails to do so and the citizen suffers from that, I think the citizen can bring a lawsuit to the court [intermediate court if suing a Ministry or Provincial Government] under Administrative Litigation Law or bring to the Standing Committee of the National's People's Congress for constitutional review."[213] All constitutional challenges must be brought before the National People's Congress due to the limited judicial review in China.[214] According to Professor Jonathan K. Ocko, professor of Chinese Law and Society at Duke University School of Law, a citizen could also bring an Administrative Law Claim: "If one thinks that a new

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208. E-mail Interview with Professor Minguyuan Wang, Tsighua Law School (Apr. 4, 2001).

209. *See id.*

210. XIANFA art. 41 (1982).

211. E-mail Interview with Professor Zhenmin Wang, Duke University School of Law (Apr. 8, 2001) [hereinafter April 8, 2001 E-mail Interview].

212. XIANFA art. 26.

213. April 8, 2001 E-mail Interview, *supra* note 211.

214. Interview with Professor Zhenmin Wang at Duke University School of Law (Mar. 28, 2001).

regulation is 'unconstitutional' in the sense that it contravenes an existing constitutional right or privilege . . . one could challenge the act."[215]

Under a constitutional claim, a citizen could invoke Article 41 to argue that the government is abrogating its duty under Article 26 by relying on ISO 14001 and industry alone to ensure compliance with existing environmental law due to limited government resources. A citizen could argue that ISO 14001 cannot be a basis for coregulation because it does not incorporate the five key elements that provide environmental protection assurances. Thus, by implementing ISO 14001, the government infringes on each individual's right to a clean environment.

One could also argue that ISO 14001 is an unconstitutional regulation under Chinese Administrative Litigation Law. Although ISO 14001 is not an official regulatory requirement, an argument can be made that it is operating as a de facto regulation given that NEPA is encouraging its use, the State Council is overseeing its implementation, and preferential polices are being granted to companies on the basis of certification.[216] Along with NEPA, the State Environmental Protection Agency (SEPA) established the office of China Accreditation Committee for Environmental Management Systems Certification Bodies to encourage Chinese companies to adopt the ISO 14001 environmental management system standards as a means of strengthening environmental enforcement in China and to conduct trial certifications of Chinese companies.[217] There is no evidence that China is planning on implementing ISO 14001 Plus in the near future. In fact, NEPA has failed to detail any policies for compliance. A citizen's claim is especially strong given that the government is encouraging the state's worst polluters to implement ISO 14001. It is NEPA's position that "adoption of ISO 14000 standards would significantly curb pollution and conserve resources and energy."[218] However, the Chinese Government's motivation in adopting the standards as a means to achieve economic growth could be used to bolster a claim that the government is not adopting ISO 14001 with an eye towards sustainable development and thus cannot objectively evaluate the impact that the standard will have on the environment.

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215. E-mail Interview with Professor Jonathon K. Ocko, Duke University School of Law (Apr. 17, 2001).

216. *See Adherence to ISO 14000*, *supra* note 196, at 17.

217. *See id.*

218. Hanks, *supra* note 146.

C. Zimbabwe

Zimbabwe has incorporated ISO 14001 into its national regulatory regime.[219] However, Zimbabwean officials recognize that ISO 14001 cannot achieve increased environmental protection on its own, so the government plans to use ISO 14001 Plus, combining it with strong legislation and a "tuned up monitoring system."[220]

In terms of industry motivation, eighty-four percent of organizations cited "social responsibility" as the primary reason for establishing environmental management system standards modeled after ISO 14001.[221]

D. Indonesia

The Environmental Impact Agency (BAPEDAL), the government agency in Indonesia that establishes environmental programs, is proceeding with caution regarding the implementation of ISO 14001.[222] BAPEDAL is in discussion with interested stakeholders to ensure that the standards improve the environmental performance of companies.[223] BAPEDAL's perspective is that the ISO should not be the ceiling for environmental performance.[224] Rather, environmental improvements must be made irrespective of the standards.[225] The country has implemented environmental management systems in the past with poor results.[226] "With ISO 14001, they want to ensure that industry does not go all out to acquire the certificate."[227]

In spite of this cautious approach, Indonesia believes that ISO 14001 will help the "weak and inconsistent enforcement of existing legislation."[228] The country believes that the ISO standards' potential impact will be "great," given that Indonesia has very stringent environmental laws with which industry will be pressured to comply.[229] According to a government official, "Indonesia is so large—the government just does not have the resources to enforce [all] the laws. Therefore, they want to promote voluntary measures. The environmental

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219. KRUT & GLECKMAN, *supra* note 10, at 106.
220. *Id.* at 106-07.
221. Voorhees, *supra* note 43, at 1190.
222. KRUT & GLECKMAN, *supra* note 10, at 105.
223. *Id.*
224. *Id.*
225. *See id.*
226. *See id.*
227. *Id.*
228. *Id.*
229. *Id.*

management system/ISO will, nonetheless, stay voluntary; government has no plans to implement it into laws."[230] If Indonesia decides to incorporate ISO 14001 into public law and policy, it must adopt ISO 14001 Plus in order to achieve sustainable development. ISO 14001's lack of transparency in the drafting process and reporting requirements means that the standards will undermine the ability of environmental organizations to police a government that lacks an adequate staff of enforcement personnel. Indonesia is another example of how the standards give developing countries the false impression that they can supplant government oversight and enforcement. Such an interpretation should be swiftly rejected.

E. South Korea

In 1994, "the Republic of Korea initiated a pilot certification scheme . . . to ensure that the [necessary] infrastructure . . . to operate an EMS certification system would be in place by the time the ISO 14001 standards were published."[231] "In 1995, the Korean Standards Association (KSA) [established] training activities jointly with certification bodies from the United Kingdom. Two hundred preliminary auditors were trained, and experimental certification audits were [performed] to assist companies in setting up their own EMS."[232] South Korea is implementing ISO 14001 Plus by requiring that companies have a general environmental management system, an overall environmental assessment of the manufacturing process, a record of environmental improvement, and a plan for the improvement of environmental parameters.[233] The Ministry of the Environment reviews the applications, inspects the sites, and if they pass, the companies are deemed environmentally friendly.[234] Companies must submit annual progress reports along with an improvement plan, and after three years they are required to implement a new assessment process cycle.[235] These companies are exempted from surprise compliance inspections.[236]

Companies in South Korea seeking certification are of three types: "(a) environmentally sensitive industries seeking to [better] their environmental image; (b) export-oriented industries [such as electronics

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230. *Id.*
231. *Environmental Management Standards*, *supra* note 180, at 14.
232. *Id.*
233. *Id.*
234. *See id.*
235. *See id.*
236. *See id.*

in preparation for] potential trade barriers; and (c) large firms committed to maintaining high environmental standards and meeting [the expectations of their] shareholders."[237]

F. Brazil

According to the general coordinator of the Brazilian Association for Technical Norms (ABNT), which represents Brazil in international discussions on ISO 14000 norms, the primary motivation for industry seeking ISO certification is essentially economic.[238] Many companies see certification "as a means of survival in an increasingly competitive global economy" where ISO 14000 is becoming obligatory in the developed world.[239] Interest in certification is coming principally from large exporters in those sectors deemed environmentally sensitive such as pulp and paper, petrochemicals, and mining.[240] The Brazilian oil market has also been impacted by ISO 14000. In June 2000, Petrobrás, the government-owned oil company, implemented a program for "environmental excellence."[241] The program's "goal is to make Petrobrás' installations safer, to minimize any risks of ecological disasters, and to contribute to Brazil's sustainable development."[242] The program acknowledges that "due to international competition, Petrobrás must modernize its operations and reach a higher degree of environmental compliance."[243] In order to achieve these goals, Petrobrás will seek ISO 14001 certification.[244] A large number of firms are also seeking certification as Brazilian subsidiaries of multinationals following in the footsteps of their parent companies.[245]

Brazilian firms are also seeking certification in order to comply with Federal Decree No. 3179, issued on September 21, 1999, which establishes serious penalties for environmental damages at administrative, civil, and criminal levels.[246]

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237. *Id.*

238. *See Growing Number of Brazilian Firms Seeking Certification Under ISO 14001*, INT'L ENV'T DAILY (BNA), at 1-2 (Mar 14, 1997).

239. *Id.* at 2.

240. *Id.* at 1.

241. Adriana Lieders, *A New Chapter in Brazil's Oil Industry: Opening the Market While Protecting the Environment*, 13 GEO. INT'L. ENVTL. L. REV. 781, 797 (2001).

242. *See id.* at 798.

243. *See id.*

244. *See id.*

245. *See generally id.* at 781-90.

246. *See* Janey Cohen, *New Decree Setting Fines Under Law on Environmental Crimes Adds Audit Impetus*, 22 INT'L ENV'T REP., CURRENT REP. (BNA) No. 22, at 895 (Oct. 27, 1999).

V. ISO 14001 AND THE TBT AGREEMENT

The ISO 14001 series was a response to two concerns: the proliferation of environmental management systems throughout the world such as those implemented by the European Union, and the fear that these systems would serve as technical barriers to trade.[247] In spite of the goals behind the development of the ISO system of standards, ISO 14001 has failed to fully address those concerns, particularly for the developing nations. Although ISO 14001 may be a sufficient set of standards for advanced trading nations with the resources to document compliance, the failure to properly include the perspectives of the developing nations during the drafting of the standards, or to provide technology transfer, acts as a serious hurdle to the achievement of ISO's goals.

A. The ISO Standards as Trade Barriers

The rationale behind the development of the ISO standards was the elimination of nontariff trade barriers that could result from the existing environmental standards.[248] The existing divergent standards were perceived at the international level as mutually exclusive and, thus, barriers to free trade.[249] The ISO 14000 series was "intended as a generic set of standards which may be applied to the operations of all types and sizes of businesses from developed or developing countries."[250] "Like the 9000 series, ISO 14000 was developed to facilitate international trade by supplying a set of standards with worldwide credibility [and acceptance]."[251] Ironically, the standards are currently acting as a de facto trade barrier for developing countries who want to be active participants in the global marketplace.[252] In addition, they could be viewed as technical barriers to trade under the TBT precisely because of their "generic" nature. Due to the inadequate representation of the developing world in the drafting process, the standards fail to consider the economic, business and technological constraints that apply specifically to developing countries, rendering them unable to comply with the standards.

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247. *See* Pinckard, *supra* note 23, at 429.

248. Genevieve Mullet, *ISO 14000: Harmonizing Environmental Standards and Certification Procedures Worldwide*, 6 MINN. J. GLOBAL TRADE 379, 397 (1997).

249. *Id.*

250. *Id.* at 388.

251. *Id.*

252. *See* Murray, *supra* note 1, at 579; Roht-Arriaza, *supra* note 25, at 527 (stating that one of the most commonly voiced concerns is that ISO 14000 will act as a trade barrier).

ISO 14001 is currently viewed as a de facto trade barrier by the developing world.[253] Although the standards are not binding on an organization, compliance has become a necessity for organizations wishing to remain competitive internationally, particularly in Europe, Asia, and the United States.[254] Companies in developing countries see the standards as a way for larger industrial countries to exclude them from their markets in favor of domestic producers.[255] For companies conducting significant business in Europe, "third-party certification may [also] be demanded as a course for doing business."[256] The high cost of obtaining such a certification, coupled with the fact that few companies in the developing nations have access to independent auditors, will limit the competitiveness of these firms.[257] In addition, "[n]ational and international government or quasi-governmental entities, such as the World Bank and the U.S. Agency for International Development, are . . . encouraging borrowers to implement environmental management [standards] and [could] ultimately require ISO 14000 certification as a way to demonstrate environmental responsibility."[258]

The ISO standards also have the potential to be challenged by the developing world as technical barriers to trade under the TBT Agreement.[259] Although technically voluntary, the standards have gained an important status in the WTO. "WTO members are to follow existing or imminent international standards as a way to reduce technical barriers to trade."[260] The TBT agreement 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."[261] The WTO considers voluntary

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253. *See* Donald A. Carr & William L. Thomas, *Devising a Compliance Strategy Under the ISO 14000 International Environmental Management Standards*, 15 PACE ENVTL. L. REV. 85, 208 (1997).

254. *See* Mullet, *supra* note 248, at 392-93.

255. *See* Murray, *supra* note 1, at 580.

256. *Id.* at 598.

257. *See id.* at 597.

258. Christina C. Benson, *The ISO 14000 International Standards: Moving Beyond Environmental Compliance*, 22 N.C. J. INT'L L. & COM. REG. 307, 342 (1996).

259. *But see* Carol J. Miller & Jennifer L. Croston, *WTO Scrutiny v. Environmental Objectives: Assessing the International Dolphin Conservation Program*, 37 AM. BUS. L.J. 73, 119 (arguing that eco-labels would survive under the "least restrictive means" test enunciated in *GATT Dispute Settlement Panel Report on U.S. Restrictions on Imports of Tuna*, June 16, 1994, 33 I.L.M. 839 (1994)); United States-Restrictions on the Import of Tuna, June 16, 1994, GATT-BID 33 I.L.M. 839 (allowing voluntary labels, but decided before TBT Agreement was complete).

260. Clapp, *supra* note 6, at 304-05.

261. Lind, *supra* note 36, at 122.

standards established by a recognized body, such as the ISO, as "standards" while it considers those set by governments, intergovernmental organizations, or UN bodies not as standards but rather as "technical regulations," which the TBT sees as creating potential trade barriers.[262] The ISO 14000 series was seen as "imminent" because it was being drafted at the same time the GATT agreement was signed, and consequently, it is recognized as international standards under the GATT system.[263]

The requirement that WTO members adopt international standards as a basis for their technical regulations creates a close working relationship between ISO and the TBT rules.[264] "[T]he TBT Agreement's Code of Good Practice explicitly refers to an intended relationship between the parties to the agreement and the ISO concerning [the] development of international standards."[265] Therefore, the Agreement creates a compulsion for a country's technical regulations to conform with international standards and a presumption that said standards are consistent with the GATT.[266]

The presumption that ISO standards are GATT consistent can be rebutted. If the adoption of the standards remains voluntary and if purchasers and businesses use the standards in purchasing decisions without any governmental interference, the standards will be consistent with GATT.[267] However, if a government or the European Union "incorporates the standards into public regulations governing access to markets, the standards [could be] open to challenge because they differentiate among products (or companies) based precisely on process."[268] "[I]f differentiation by process can be shown to have a discriminatory effect on imports, it would be prohibited . . . under current GATT practice."[269] Although the TBT agreement does not apply to process and production methods (PPM) regulation, because the PPMs are not directly related to product characteristics, member parties are still required to satisfy the GATT's Most Favored Nation (MFN) and national treatment principles.[270] The MFN principle in Article I prohibits parties

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262. Clapp, *supra* note 6, at 305.
263. *See id.*
264. *See* Lind, *supra* note 36, at 123.
265. *See id.*
266. *See id.*
267. *See* Roht-Arriaza, *supra* note 25, at 520.
268. *Id.*
269. *Id.*
270. Lind, *supra* note 36, at 123-24.

from distinguishing products based on how they are produced.[271] The national treatment principle of Article III has been interpreted to prohibit a party from requiring an exporting country to change its environmental policies or practices in order to have equal access to the domestic market.[272] Therefore, developing countries "that lack the necessary technology, national economy and market, or ability to properly adhere to ISO standards" could challenge them as violating the TBT.[273] "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."[274]

Two specific standards regarding eco-labeling (ISO 14040) and life cycle assessment standards (ISO 14020) could constitute technical barriers to trade under the TBT even if adoption remains voluntary, because of their scientific and technical nature, the relative lack of accreditation and/or the lack of registration bodies in developing countries.[275] As substantive standards, they set product and process regulation. It was the *procedural* nature of the ISO standards that was seen to resolve the tension between international trade and the environment.[276] However, as the standards become more substantive in nature, they act more as a divide than a bridge. Developing countries will have to import the necessary infrastructure until the infrastructure can be developed within the country.[277] The result is that developing countries will be faced with increased costs if they decide to adopt ISO standards.[278] The need to import infrastructure from the developed world will also render developing countries more dependent on developed countries.[279] Once the infrastructure is in place, simply maintaining the standards is expensive both for the national standardization body and the companies themselves.[280]

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271. *Id.* at 121.
272. *Id.* at 121-22.
273. Henry P. Baer, Jr., Note, *ISO 14000: Potential Compliance and Prevention Guidelines for EPA & DOJ*, 7 FORDHAM ENVTL. L.J. 927, 965 (1996).
274. Roht-Arriaza, *supra* note 25, at 520.
275. *See* Carr & Thomas, *supra* note 253, at 207.
276. Murray, *supra* note 1, at 599.
277. KRUT & GLECKMAN, *supra* note 10, at 76.
278. *Id.*
279. *Id.*
280. *See id.*

B. Eco-labels as Trade Barriers

Eco-labeling is a widely popular suggestion for balancing environmental protection and international trade concerns. Eco-labeling is a nonregulatory approach which harnesses the power of the market by facilitating "green" consumerism. However, there are several concerns related to eco-labeling. For example, eco-labeling standards could become technical barriers to trade from the developing world's perspective.[281] In addition, eco-labeling could lead to green-washing if industry establishes the standards itself.[282] Eco-labeling is of special concern for developing countries because their products must comply with a developed country's specific local or regional regulations in order to attain the label.[283] For example, the European Community (EC) label is only awarded to companies that can meet all EC health, safety and environmental regulation.[284] "In addition, the criteria for [determining] product categories and for determining which products are substitutes for each other may be skewed [due to] a lack of knowledge of 'low-tech' developing-country alternative products."[285] Finally, developing countries do not have the technology necessary to monitor the qualification requirements of a particular eco-label.[286]

"The possibility [that] procedures and criteria for environmental labels [could constitute] 'unfair trade restrictions' or 'discriminat[ion] in the treatment of domestic and foreign products and services' is explicitly rejected through Principle 7 of the [eco-labeling] standard, which describes 'instances of potentially unfair trade barriers.'"[287] However, "[a] task group created by the working group in charge of designing [the] standard [recognized in] a discussion paper on Principle 7 . . . that discrimination against foreign producers can result from [these standards] 'despite the voluntary nature.'"[288] A previous version of Principle 7 provided examples of eco-labeling criteria that could legitimately be used to discriminate between products, as well as examples of suggested objectives that, if achieved, would eliminate or reduce the potential for the criteria to create unfair trade barriers.[289]

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281. *See* Carr & Thomas, *supra* note 253, at 207.
282. *See* Lind, *supra* note 36, at 118-19.
283. *See* Roht-Arriaza, *supra* note 25, at 528.
284. *Id.* at 514.
285. *Id.* at 528-29.
286. *Id.* at 529.
287. Pedro da Motta Veiga, *Eco-labelling Schemes*, *in* THE ENVIRONMENT AND INTERNATIONAL TRADE NEGOTIATIONS 60 (Diana Tussie ed., 2000).
288. *Id.*
289. *See id.*

These examples were deleted from Principle 7 for fear of conflict with GATT/WTO rules.[290] "The working group in charge of [the eco-labeling] standard is [currently] considering three different options for the text of Principle 7."[291] The three options differ on how discriminatory criteria can be reconciled with the GATT/WTO rules and existing multilateral environmental agreements.[292]

The TBT agreement recognizes that developing countries may face challenges in developing and implementing technical regulations, standards, and procedures for ensuring compliance.[293] In response, the TBT agreement contains provisions for technical assistance and transfer of technology, as well as for differential and preferential treatment.[294] The TBT agreement provides that "developing country members should not be expected to use international standards as a basis for their technical regulations or standards, including test methods, which are not appropriate to their development, financial and trade needs."[295] However, this provision neither protects against nor prevents the standards from being used against developing countries as trade barriers. The TBT agreement further provides "upon request, specified time-limited exemptions."[296] A ten-year exemption would be beneficial to developing countries in that they could use that time to develop "national standards for environmental management systems or eco-labels."[297] "If this exemption were granted, at the five-year review of ISO 14001, developing countries could work to ensure that their views were more fully incorporated into the revised standard."[298] Exemptions would also have to be granted to individual firms that have difficulties obtaining certification and meeting the standards imposed for procurement in other countries.[299]

Challenges to the international standards as technical barriers to trade will likely be brought by the developing world to the WTO.[300] The WTO has the power to enforce new standard-setting criteria under its

290. *See id.*
291. *Id.* at 61.
292. *See id.*
293. KRUT & GLECKMAN, *supra* note 10, at 73.
294. *Id.*
295. *Id.*
296. *See id.*
297. *Id.*
298. *Id.*
299. *See id.*
300. *See* Diana Tussie & Patricia Vasquez, *The International Negotiation of PPMs*, *in* THE ENVIRONMENT AND INTERNATIONAL TRADE NEGOTIATIONS 114 (Diana Tussie ed.,2000).

dispute settlement process.[301] Developing nations are making much greater use of this process than they have in the past.[302] This increased participation in dispute resolution is the result of a willingness by the nations of the developing world to use the WTO agreement as a mechanism to enforce their rights.[303] However, the "lack of legal expertise and resources within a costly and time-consuming dispute mechanism system [could] deter complaints by developing nations."[304] India has suggested that a fund be established, to assist developing countries, derived from a levy on the users of the Dispute Settlement Understanding.[305]

Several improvements could be made to the ISO standards to prevent them from operating as trade barriers for developing countries. Examples include ensuring greater developing country participation in the drafting of future ISO standards, as well as technological assistance and capacity building to aid developing countries in implementing ISO. In addition, changes in the standards that would increase the likelihood of achieving sustainable development include: cooperation between the developing and developed world in establishing an effective coregulatory regime in developing countries, making the standards more accountable to the public through NGO involvement, third-party certification, and the use of an environmental effects registrar. The following Part discusses these proposals in greater detail.

VI. REFORMING ISO 14001 SO THAT THE TWIN GOALS OF HARMONIZATION OF INTERNATIONAL TRADE AND SUSTAINABLE ENVIRONMENTAL PROTECTION ARE LESS FICTITIOUS FOR THE DEVELOPING WORLD

First and most importantly, developing countries need to participate effectively in the drafting of the standards. Although the ISO claims that meetings have been broadly representative, in reality it is only those countries that have the money to consistently attend meetings and take on the drafting work who actually decide the content of the ISO standards.[306] Developing countries at Oslo expressed their disappointment at the lack

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301. *See* Nicholas A. Robinson, *The Transnational Practice of Environmental Law: Global Access and Due Diligence*, SB52 ALI-ABA 123, 148 (1997).

302. *See* Matthew P. Jaffe, *Are International Institutions Doing Their Job? World Trade Organization*, 90 AM. SOC'Y INT'L L. PROC. 412, 417 (1996).

303. *Id.*

304. Thomas L. Brewer and Stephen Young, *WTO Disputes and Developing Countries*, 33 J. WORLD TRADE 169, 179 (1999).

305. *Id.*

306. *See* Clapp, *supra* note 6, at 306-07; KRUT & GLECKMAN, *supra* note 10, at 40-45.

of any discussion regarding a commitment to equal representation from developing countries in the standards-setting process.[307] According to Joe Cascio, former head of the U.S. delegation to ISO 14000 and promoter of the standards for the Global Environmental Technology Foundation: "If you look at the statistics, there are a considerable number of developing countries represented."[308] Although DEVCO has financed delegations from developing countries in the past, the committee's resources are limited. The ISO could provide developing countries, upon request, with financial resources to increase their participation in all future TC 207 committee, subcommittee, and working group meetings.[309] Alternatively, the Secretariat of the ISO could establish a fund to finance attendance at meetings by representatives from the developing countries.[310] The money could be raised by assessing current members of the ISO.[311] Other proposals that will lead to more equal participation in the drafting process include: (1) ensuring that a regional standard-setting body from a developing country's economic association is granted participating membership in the ISO on behalf of their combined economies and industries; (2) "establishment of regional environmental, health, and safety standard-setting bodies to jointly represent the interests of a number of developing countries in the ISO [arena]"; (3) "proposing neutral and geographical . . . chairs of TC 207 subcommittees and working groups"; and (4) rotating leadership positions and assigning a G77 group representative to selected meetings in order to divide the burden of covering the multitude of subcommittees and working groups.[312]

In addition, developing countries need assistance to implement successfully environmental management standards. Representatives from developing countries at the Oslo meeting were interested specifically in technology transfer and a phase-in period.[313] According to the UNCTD, this assistance could come from the business community, governments, and others at the national level.[314] Policies and measures at the bilateral and/or multilateral levels, including cooperation in the area of technical assistance and capacity building, could also aid companies

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307. *See* Clapp, *supra* note 6, at 307.

308. *See* Joe Kirwin, *WWF Calls on ISO to Clear Up Confusion Surrounding Extension of 14001 to Forestry*, 19 INTL. ENV'T REP., CURRENT REP. (BNA) No. 19, at 811 (Sept. 18, 1996).

309. Roht-Arriaza, *supra* note 25, at 528.

310. *Id.*

311. *Id.*

312. KRUT & GLECKMAN, *supra* note 10, at 118.

313. *See* Clapp, *supra* note 6, at 307.

314. *See* KRUT & GLECKMAN, *supra* note 10, at 16.

and governments of the developing world.[315] Specific issues mentioned by the UNCTD that experts should consider include the following:[316]

(1) *Access to and Transfer of Technology*: firms in developing countries will need access to environmentally sound technologies in order to implement the ISO standards initially, as well as periodic access to technological innovations in order to meet the requirement of "continual improvement."

(2) *Training and Awareness Raising*: training and awareness efforts are needed in order to demonstrate the need for and the potential benefits of ISO 14001 to the developing world. Training could target local training and certification bodies, consultants and business leaders. An examination should be made on national experiences, facilities and training packages. Such an examination could focus on the possibilities for South-South cooperation.

(3) *Dissemination of Information*: Trade considerations play a crucial role in the implementation of ISO 14001 and the establishment of certification bodies in developing nations. Developing nations, particularly those with export-led growth strategies, need timely and objective information regarding trends in the use of ISO 14000 in major markets. Technical assistance activities that identify the sources for such information as well as inter-firm networking may also help developing countries remain informed.[317] Experts could identify information requirements and find ways and means to deliver such information to developing country governments and firms.

(4) *Infrastructural Requirement*: Experts could identify the basic infrastructure requirements, such as the availability of consultants and credible certification bodies, needed for companies to be successful participants in ISO 14001. This process could aid national governments in designing their national implementation policies.

(5) *Pilot Schemes*: The experience in South Korea illustrates that pilot schemes are effective ways to enhance the understanding of environmental management systems and gain practical experience.[318] They provide opportunities for mutual learning by the business community and certification bodies. As was the case in South Korea, pilot schemes can be established in cooperation with certification bodies located in developed nations.[319] Multilateral and bilateral agencies could also aid in this effort. Finally, South-South cooperation can be promoted to take advantage of the experience

315. *See id.*
316. *Environmental Management Standards*, *supra* note 180, at 1.
317. *Id.* at 13-14.
318. *Id.*
319. *Id.* at 13-18.

acquired by the developing countries with successful programs in place. Some authors suggest that "[i]nternational lending institutions should provide financial assistance to developing countries [who] wish to [establish] infrastructure for national accreditation [schemes]."[320]

(6) *Industry Cooperation*: Cooperation between companies in the developed world and their suppliers in the developing world can promote both the implementation and improvement of EMS in developing countries.[321]

For countries considering using ISO 14001 as the basis of a coregulatory regime, support is needed for backdrop government enforcement so that ISO 14001 Plus is credibly in place. Training for governmental and nongovernmental officials in the developing world could focus on the establishment of an initial body of environmental rules and agreement tools; assessing whether EMS and ISO 14001 can be effective in that particular country's enforcement regime; assessing the limitations of national policies in conforming to the ISO standards and the Agreement on Technical Barriers to Trade; drafting into state legislation the requirement that emissions and environmental accident data be publicly reported, as well as other "innovative best practices from leading national and international regulations"; and "evaluating alternative enforcement mechanisms presently used by other countries for their potential applicability and establishment of a phase-in process for environmental management systems, environmental performance indicators and eco-labels."[322]

Finally, in order for improved environmental performance to become a reality, firms implementing the standards have to be held accountable to the public. It cannot be forgotten that the ISO is an industry body whose traditional role was the production of technical standards for businesses.[323] "However, in leaving the area of technical standards setting and entering the realm of settings standards for global environmental management, the ISO enters an area that is of substantial public interest."[324] ISO 14001 became an international standard in the absence of substantive public review.[325] The drafters of the standards

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320. Jason Morrison et al., Pac. Inst. for Studies in Dev., Env't, and Sec., *Managing a Better Environment: Opportunities and Obstacles for ISO 14001 in Public Policy and Commerce* 8, (Mar. 2000), *at* http://www.pacinst.org/isoproceedings.pdf (last visited Jan. 26, 2004).

321. *See Environmental Management Standards*, *supra* note 180, at 17.

322. KRUT & GLECKMAN, *supra* note 10, at 116-17.

323. *See id.* at 2.

324. Robinson, *supra* note 301, at 154.

325. *See id.*

were business representatives working on behalf of their corporations.[326] NGOs did not participate in the early ISO 14001 discussions and since that time only a few environmental groups are liaising with TC 207 or participating as observers in ISO meetings.[327] The World Wide Fund for Nature, an environmental group, has criticized the ISO for its failure to involve environmental NGOs in the standard setting process.[328] The environmental group is also calling for more transparency in the ISO process after media access to meetings was cut off in June 1996.[329]

Although NGOs did not participate in the development of the standards, today they play a role in increasing the accountability of the standards to the public. For example, in South Africa, "[a]ll six NGOs which participated in [a] research [study of the implications of ISO 14001 for South African industry felt] that the development of the ISO 14001 standard was not participatory enough."[330] However, "NGO representatives added that NGOs [could] help monitor industry's performance . . . even though ISO 14001 does not give the public the right to monitor the process."[331] Some of the NGO respondents believed "that the interest and involvement of NGOs will improve the implementation of ISO 14001 further."[332]

In spite of the willingness of these NGOs to play a role in making the standard more transparent, they displayed only a superficial understanding of ISO 14001 and its potential benefits for the South African environment.[333] Most of the organizations interviewed were unsure "if the implementation or certification to ISO 14001 by South African industries will strengthen environmental management or have an impact on environmental policy and legislation."[334] A common message resounded from five of the six NGOs that were interviewed: "*Under no circumstances should industry be trusted with self regulation*."[335] Only one of the six representatives was aware of how ISO 14001 was developed.[336] This representative was the only one who believed that the ISO 14001 could assist "in the development and implementation of

326. *See* KRUT & GLECKMAN, *supra* note 10, at 41.
327. *See id.* at 24; *see also* Roht-Arriaza, *supra* note 25, at 524.
328. Kirwin, *supra* note 308, at 811.
329. *See id.*
330. Rukato, *supra* note 171, at 12.
331. *Id.*
332. *Id.*
333. *See id.*
334. *Id.* at 12-13.
335. *Id.* at 13 (emphasis added).
336. *Id.*

national environmental policy."[337] A different NGO representative felt that industry could self-regulate only if the government has the following programs in place: "a national duty of care legislation," "a national register of waste producers," a "national 'waste manifest system,'" and an "Integrated Pollution Control and Waste Management policy."[338] This response indicates an awareness of the difference between ISO 14001 and ISO 14001 Plus. The same representative felt that ISO 14001 should be supported by the South African government for several reasons: "it will promote effective self regulation where applicable if there is legislation in place, certification implies continuous improvement, and ISO 14001 would assist in international trade."[339] Several interviewees suggested that for ISO 14001 to be understood and to get the support that it deserves, there is a need for an educational initiative; the NGOs did not state whether this should come from industry or government.[340]

Another way that the standards could become more accountable to the public is requiring third-party certification. Although developing nations view such a requirement as an additional burden to an already costly process, the only way that the standards will have any real meaning in the absence of performance requirements is to require third-party certification.[341] Such a requirement can "be phased in over several years to [permit] companies in developing nations to make the [requisite] financial commitment."[342]

A third-party certification modeling the European Union's voluntary Eco-Management and Audit Scheme, which most environmentalists consider to be a stricter management system regime than ISO,[343] could prove quite beneficial for developing countries by shifting monitoring costs to private industry.[344] Such a system "would require rules for certifiers, strict checks and regular quality control over certifying bodies, and the development of a uniform certifying methodology."[345] Private certifiers could also work in cooperation "with national environmental ministry officials, thus combining technical

337. *Id.*
338. *Id.*
339. *Id.*
340. *Id.* at 15.
341. *See* Murray, *supra* note 1, at 614.
342. *Id.*
343. *See id.* at 596-97.
344. Roht-Arriaza, *supra* note 25, at 537.
345. *Id.*

assistance with a financing mechanism that does not . . . burden poor countries."[346]

The standards could also mandate full public disclosure of important environmental data analogous to the "environmental effects registrar" required by British Standard 7750.[347] Such information would be freely available so that suppliers and trading partners, as well as environmental groups, could ensure that the standards are producing results and leading to a cleaner environment.[348] Such a change was proposed by TC 207 in the draft stages of ISO 14000, but the United States opposed it due to fears of increased litigation and fines.[349] These fears could be alleviated through the adoption of a limited privilege.[350]

VII. CONCLUSION

In leaving its traditional role as promulgator of technical standards, and developing environmental management system standards that apply internationally and are favored by the WTO, the ISO is engaged in global policy making. It is inappropriate for the ISO to engage in global policy making without ensuring that the interests of affected parties, such as developing countries, are adequately represented within the organization. ISO 14001 is currently operating as a trade barrier because the standards' drafting process was dominated by industrialized countries who failed to consider the unique business, economic and technological background of the developing countries. Although praised as "generic" and applicable to any business in both developed and developing countries, it is precisely these aspects of ISO 14001 that make it a trade barrier. Moreover, the ISO will not lead to sustainable development worldwide because the standards do not reflect the particular environmental needs of the developing world, and developing countries will not comply with standards they had little role in crafting. In addition, ISO 14001 threatens sustainable development at the domestic level. As developing countries seek to ease their enforcement burden in the face of scarce government resources and concerns about sacrificing economic growth in favor of environmental conservation, they could adopt ISO 14001 without the key elements necessary for effective coregulation.

Although ISO 14001 has the potential to achieve its goals, it will take cooperation between the developing and the developed world. This

346. *Id.*
347. Murray, *supra* note 1, at 614-15.
348. *See id.*
349. *See id.* at 615.
350. *See id.*

leads to the debate about whether assistance should come from national governments or international agencies and lending institutions. Further, in order for ISO 14001 to have any sustainable environmental impact, substantive performance requirements have to be adopted. Third-party certification may also be necessary in order to hold the standards accountable to the public.

If the interests of the developing countries continue to be ignored while adoption of the standards become a condition for doing business in the developed world, ISO 14001 will not bridge the tension between environmental protection and trade liberalization. Instead, ISO 14001 will divide the North and the South. Developing countries will trade only with other developing countries leading to two different markets with two different sets of environmental rules.