1. INTRODUCTION

In the latter half of the twentieth century, there has been an increasing awareness of the need for environmental protection on a global scale and, at the same time, a recognition that international trade liberalization policies may be at odds with environmental protection. This interplay between the growing international economic interdependency and the demands for environmental protection has been the subject of much commentary. Although the general consensus is that both global environmental protection and increasing international trade mobility are worthy goals, there is little agreement on how nations can simultaneously achieve these two objectives.

Environmentalists are concerned that any weakening of environmental standards, particularly in the United States, will...
result in overall environmental degradation. Industries, on the other hand, view strict environmental standards as a means to stymie international competition. This debate is even more pronounced in emerging economies. These countries are almost always hostile to any linkage between international trade and environmental policy. Both international trade policy and environmental groups have begun to focus on the issue. In response to this tension between environmental and free trade concerns, there has been an increasing movement for the harmonization of environmental regulation. Although harmonization may be a good idea in theory, it still has not solved the problem of weakening standards in the industrial nations and raising standards in the developing nations to such a level that companies cannot afford to comply.

In response to this problem, on September 1, 1996, the International Standards Organization ("ISO") approved the voluntary international environmental standards, ISO 14001 and 14004. These standards provide a means for companies to manage their environmental programs and performance. These

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2 See Simon S. C. Tay, Asians Must Learn To Play the Green Game, BUS. TIMES, June 14, 1996, at 12 (arguing against uniform environmental requirements, he states, "[a] green mask may hide the hard face of economic self-interest").


5 "All nations and producers have a basic common interest in harmonizing their product regulations in order to reduce transaction costs, efforts at disguised protectionism, and other trade barriers resulting from differences in national standards." Stewart, supra note 1, at 2044.


first two standards can guide companies to develop or improve an environmental management system ("EMS") that can be used in conjunction with other management systems to achieve the economic and environmental goals of the organization. Although these two environmental management standards were the only ones in the 14000 series which gained approval, there are others at various stages of development. These include standards on environmental auditing, performance evaluation, eco-labeling, and life-cycle analysis.

The standards enable an organization to establish procedures that set environmental policy and goals, to conform to them, and to demonstrate the conformance to the organization's stakeholders. As the introduction to the standards states, "[t]he overall aim... is to support environmental protection and prevention of pollution in balance with socio-economic needs."

Although the goals of the standards are quite laudable, they are not without their critics. One of the most widely-voiced concerns is that countries will use the standards as non-tariff trade barriers. This is somewhat ironic, because one of the primary motivating factors in developing the standards was to eliminate non-tariff trade barriers. The rationale was that an international standard would solve the problems created by the inconsistency of a myriad of national and regional environmental regulations. Because the standards are procedural and not substantive, they do not set product or process regulation. As a result, there is no problem of creating regulations that are nonattainable for developing countries and unprotective for industrial countries. Therefore, the standards will not interfere with the free flow of goods from country to country. The standards specifically state that they are "not intended to be used to create non-tariff barriers or to increase or change an organization's legal obligations."

Despite this claim, many developing countries continue to fear that implementation of the standards will lead to trade barriers rather than improved market competitiveness. Although the

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9 See ISO 14001, supra note 7, at v.
11 ISO 14001, supra note 7, at v.
12 See discussion infra Section 3.
13 ISO 14001, supra note 7, at v.
standards are voluntary, there is apprehension that certification to
the standards will become de facto mandatory as organizations or
countries require ISO certification for entrance into their
markets.14 Developing countries are concerned that larger
industrial countries will use the standards to exclude them from
their markets in the interest of the latter’s domestic economy.
They cite to the U.S. labor unions’ advocacy of NAFTA’s side
agreement with Mexico as an example of this disingenuousness.15

Section 2 of this Article will evaluate the complex relationship
between the ISO standards and international trade. Specifically,
Section 3 will examine the standards’ interaction with GATT
1994/WTO Agreement (“GATT 1994”) and its Agreement on
Technical Barriers to Trade (“TBT Agreement”).16 The TBT
Agreement creates a preference for international standards and
mandates that standards must not be “more trade restrictive than
necessary” to meet the stated regulatory objective.17 The Agree-
ment recognizes that environmental protection is a “legitimate
objective” that may justify certain regulations that result in trade
restrictions.18 Currently, no nation has adopted the ISO stan-
dards as law, and therefore, arguably, a country cannot challenge
it under the TBT Agreement. Some countries, however, are
either strongly encouraging or considering mandatory implementa-
tion of the standards.19 In either case, the question then becomes

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14 See David J. Freeman & Gregory R. Belcamino, Protecting the Confidential-
ity of ISO 14000 Audit Reports, N.Y. L.J., June 12, 1995, at S4 (stating that a
number of large companies have indicated they will require ISO 14000
certification of suppliers and customers).

15 See Tay, supra note 2. Also cited as an example of trade barriers
disguised as environmental regulation is the “case of Asean tropical timber
[where] there was no corresponding control over products from temperate
forests which also contribute to environment degradation.” Id.

16 Final Act Embodying the Results of the Uruguay Round of Trade
Negotiations, Agreement on Technical Barriers to Trade, Apr. 15, 1994,
reprinted in H.R. Doc. No. 103-316, at 1428 (2d Sess. 1994) [hereinafter TBT
Agreement].

17 Id. art. 2.2.

18 Id.

19 Currently, the U.S. Environmental Protection Agency (“EPA”) is
considering a number of options that involve ISO 14000. One proposal is to
require ISO 14000 certification as a prerequisite for entrance into certain
regulatory reform pilot programs such as Project XL. See CSI, Leadership
Programs at EPA May Use ISO 14000 Management Standards, Official Says, 26
Env’t Rep. 257, 258 (BNA) (May 26, 1995) (“A business’ adherence to ISO
14000 may provide a basis for EPA recognition of a firm’s ability to attain
whether the ISO standards are too restrictive to pass muster under the agreement. Section 4 will argue that the standards are not too restrictive, notwithstanding potential challenges to the standards as non-tariff trade barriers under GATT 1994.

Even if the standards remain voluntary and are not an issue under GATT 1994, there is a problem that they could be used as de facto trade barriers. If ISO 14000 squeezes out a significant number of countries from the global market, the standards will not truly further their stated goal of creating viable international environmental standards. Rather, ISO 14000 should operate as a means of encouraging environmental improvement in poorer developing countries by enabling them to compete effectively in the global economy. If the standards, even inadvertently, have the effect of creating substantial trade barriers for developing nations, then the standards need to be reevaluated.

ISO 14000 has the potential, as an international environmental standard, to help resolve the problem of transboundary environmental risk and to improve the global economy. In order to reach this potential, changes may need to be incorporated in the standards as well as in international trade agreements.

2. ISO 14000

2.1. Background and Influences on ISO 14000

There has been increasing awareness, in the United States as well as abroad, that a more global approach to environmental protection is necessary to safeguard the earth’s precious resources. In 1993, the Geneva-based International Standards Organization began developing universal standards for environmental compliance with environmental regulations . . . ." (quoting Mary McKiel, EPA’s standards network director)).

In addition, the Colombian government may require ISO 14000 certification as a precondition to allowing a company to search for oil. See Kara Sissell, Survey: High Regard for ISO 14000, CHEM. WK. Nov. 8, 1995, at 42.

The international community recognized the vast scope of environmental problems at the Earth Summit in Rio de Janeiro in 1992. Agenda 21, a non-binding agreement reached at the Summit, catalogs the wide variety of environmental problems facing the world today. See THE EARTH SUMMIT (UNCED) 125 (Stanley P. Johnson ed., 1993).

The ISO is a non-governmental organization established in 1947 “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
The ISO patterned these standards after ISO 9000 Standards on Quality Management and designed them to promote continuous environmental improvement. The ISO created a technical committee, TC 207, to draft global guidelines that would function for both small and multinational companies despite wide differences in environmental statutes and regulations. In February 1995, TC 207 released its draft guidelines—ISO 14000: Guide to Environmental Management Principles, Systems, and Supporting Techniques. TC 207 also composed another draft standard, ISO 14001, as the specifications for the development of Environmental Management Systems. Delegates from over fifty countries met in Oslo in June 1995 and to developing cooperation in the spheres of intellectual, scientific, technological and economic activity.”


approved both the 14000 and 14001 draft standards. At that time, however, they renamed draft standard 14000 to ISO 14004. In March 1996, members of TC 207 met in London and approved the current draft. TC 207 fully approved the draft standards as ISO standards in September 1996.

The ISO 14000 Environmental Management System is a stark departure from the U.S. public-law approach to environmental regulation. Instead of using a punishment-based command and control system to delegate enforcement power to governmental agencies and the states, the ISO approach is voluntary. The ISO allows an individual company to set the benchmark of environmental performance, with the minimum standard at the current regulatory level, and permits competition to drive continued improvement. One should note, however, that the standards "were not designed to be a cure-all for environmental problems." This system, if successfully implemented, will encourage companies to go beyond the minimal environmental standards set by an individual country and compete successfully on an international playing field.

27 See Freeman & Belcamino, supra note 14, at S4.
28 See id. Hereinafter, “ISO 14000” will refer to the ISO 14000 series, which include ISO 14001 and ISO 14004.
32 See id.
2.1.1. Environmental Management Systems and the Development of ISO 9000

Since the mid-1980s, there has been increasing interest in encouraging companies to adopt voluntarily environmental management systems as a way to self-police environmental compliance and encourage improvement.34 These systems exceed the typical environmental compliance assessments that many companies have been routinely undertaking since the 1970s.35 A successful environmental management system is more concerned with a company's total and continued involvement in its environmental performance than with isolated efforts. The system "focuses the organization's efforts to establish reliable, affordable, and consistent approaches to environmental protection that engage all employees in the enterprise. The environmental protection system becomes part of the total management system, receiving the same attention as quality, personnel, cost control, maintenance, and production functions."36 The goals of ISO 14000 are to unify international standards that lessen the impact of country-specific regulations and to create a system that will lead

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34 For example, in 1988 the Chemical Manufacturers Association adopted the Responsible Care code of environmental conduct. Over 90% of the chemical manufacturers represented by the Chemical Manufacturers Association have committed to the Responsible Care code. See Michael S. Baram, Multinational Corporations, Private Codes, and Technology Transfer for Sustainable Development, 24 Envtl. L. Rep. (BNA) 33, 47-49 (1994).

35 Environmental compliance auditing merely assesses whether a company is in current compliance with environmental regulation that affects the company's processes and products. Companies do not have to undergo compliance audits regularly. Moreover, the audits do not guarantee continued compliance or continued environmental improvement. See ISO 14001, supra note 7, at v. The American Society of Testing and Materials ("ASTM") has developed a draft standard for environmental compliance auditing as well as a standard for an environmental management system audit. Both are specifically designed for U.S. companies, but will be compatible with international standards adopted by ISO. See William P. Gulledge, Environmental Auditing and the New ASTM Standards: A Useful Management Tool or an Enforcement Time Bomb?, in AUDITING FOR ENVIRONMENTAL QUALITY LEADERSHIP 79, 81 (John T. Willig ed., 1995).

36 Joe Cascio, The Forum: ISO 14001 They Will Be Used — For Good Reason, ENVTL. FORUM, Nov.-Dec. 1995, at 38 ("Reliability is achieved through continual awareness and competence of all employees, rather than from extraordinary or isolated efforts of specialists.").
to meaningful environmental improvement on a global scale. 37

In 1992, the British Standards Institute ("BSI") created British Standard 7750 ("BS 7750"), 38 which is designed to assist any type of company in establishing a viable environmental management system. 39 Also in 1992, the Earth Summit in Rio de Janeiro adopted the international compact entitled Agenda 21, which encourages business and industry "[t]o adopt and report on the implementation of codes of conduct promoting best environmental practice . . . " 40 Soon thereafter, in 1993, the European Union established a voluntary environmental management and auditing system, the Eco-Management and Audit Scheme ("EMAS"). 41 The stated purpose of EMAS is "to promote continuous improvements in the environmental performance of industrial activities." 42 Generally, EMAS requires periodic audits, external verifiers, an environmental management system, and a publicly-filed environmental impact report. 43 As a result of these government-sponsored initiatives, as well as business-supported proposals, 44 in 1992, ISO began exploring the possibility of

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37 See Marc E. Gold, ISO 14000: A New Global Business Benchmark, ENVT. COMPLIANcE & LITIG. STRATEGY, May 1995, at 1. ("Ideally ISO 14000 will level the international environmental playing field by establishing a uniform set of voluntary environmental standards that will be the norm for international trade.").


39 See id.

40 Agenda 21, § 30.10, in THE EARTH SUMMIT, supra note 20, at 430.


42 Id. at 2. A detailed discussion of EMAS is beyond the scope of this paper. For a complete overview of EMAS and a recommendation for the development of an American EMAS, see Eric W. Orts, Reflexive Environmental Law, 89 NW. U. L. REV. 1227 (1995).

43 See Council Reg. 1836/93, supra note 41, at 3.

44 In 1991, the Business Council for Sustainable Development suggested creating international environmental standards to allow businesses to measure environmental impact and then take steps to improve it. In 1989, the Valdez Principles were published as a guide to socially responsible investors. Corporations that agreed to the Principles were to minimize pollutants and wastes, publish annually a self-audit of environmental impact, and establish an environmental management system. See Naomi Roht-Arriaza, Shifting the Point of Regulation: The International Organization for Standardizations and Global Lawmaking on Trade and the Environment, 22 ECOLOGY L.Q. 479, 497-98
developing an international environmental standard that would not be industry or country specific. The success of ISO 9000, the international quality control standards, led to optimism that similar techniques could be used to develop an environmental management standard.

ISO 9000, published in 1987, established guidelines for companies to use when they create quality assurance systems for themselves and their suppliers. ISO 9000 attempted to standardize quality assurance systems in order to facilitate international trade. Instead of creating a uniform international standard, ISO 9000 produced guidelines for companies to establish quality control systems for the life cycle of particular processes or products. One aspect of ISO 9000 that foreshadowed the development of the 14000 series is the requirement that a company offer products or services that comply with societal statutes and regulations, including environmental rules.

Another aspect of ISO 9000 that has been incorporated into 14000 is the use of regular internal audits as well as outside verification. The widespread success of ISO 9000 registration, especially in Europe, led to much optimism that nations would embrace an international environmental standard as well. The hope is that ISO 14000 certification will replicate the experience of ISO

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45 See id. at 499.
46 See id. at 499-500.
47 See id. at 499.
49 See ISO 9004: Quality Management and Quality System Elements, § 0.1, International Standards Organization (ISO), ISO 9004-1:1994(E) (1994) [hereinafter ISO 9004]. These requirements include “obligations resulting from laws, regulations, rules, codes, statutes and other considerations... including notably protection of the environment, health, safety, security, conservation of energy and natural resources.” Id. § 3.3.
50 See id. §§ 5.4-5.5.
51 See Geoff House, Raising a Green Standard, INDUSTRY WK., July 17, 1995, at 73 (noting that ISO 14000 is moving toward acceptance similar to ISO 9000). However, ISO 9000 is not without its critics, particularly in the United States. U.S. companies complained about the necessity of an independent certifier because no accredited certifiers existed at that time in the United States and the EU would only accept its own certifiers. See JOHNSON, supra note 48, at 147. These criticisms have also carried over to ISO 14000. See infra Section 2.2.2.1.
9000 by producing a domino effect of certification as more and more companies decide to certify themselves and also require certification of their suppliers. Unfortunately, this hope is also a major concern of many of the companies in developing nations. They fear that a certification requirement will serve as a de facto permit for entrance into global markets, thereby barring companies who cannot afford the certification costs from international trade.

2.1.2. TC 207

As a result of these initiatives and the Earth Summit in Rio, ISO formed the Strategic Advisory Group on Environment ("SAGE") in 1992 to determine the feasibility of an international environmental management standard using BS 7750, EMAS, and ISO 9000 as guidance. After much study and the production of the initial draft documents, SAGE recommended that ISO form a technical committee ("TC 207") to produce "consensus" standards. In 1993, TC 207 began to establish environmental standards in five areas: management systems, audits, labeling, environmental performance evaluation, and life cycle assessment.

Not surprisingly, European nations represent, by far, the largest presence in TC 207. They advocated the rapid development of an ISO standard that would be consistent with BS 7750 and EMAS. The United States, Canada, as well as the Pacific Rim countries also had significant influence in TC 207.

In June 1995, TC 207 met in Oslo and approved a draft international environmental management standard — ISO 14001, the actual management system, and ISO 14000, the guidelines on

52 See Johansson, supra note 31, at 93, 102.
54 See id.
55 See Roht-Arriaza, supra note 44, at 50l.
57 See id. at 40-41.
58 See id.
59 See id.
60 See Roht-Arriaza, supra note 44, at 526-27.
principles, systems, and supporting techniques.\textsuperscript{61} The draft documents were to be circulated to member countries for at least six months before voting on its final adoption.\textsuperscript{62} The other sub-committees are still working on the consensus draft documents, which may not be ready for circulation for several years.\textsuperscript{63} In March 1996, the members of TC 207 met in London and approved the draft documents.\textsuperscript{64} TC 207 made available the finalized version of the documents during the summer of 1996,\textsuperscript{65} and members approved it in September 1996.\textsuperscript{66}

2.2. ISO 14000 Specifics

The standards set forth in ISO 14000 are guidelines that will enable any company in the world, irrespective of size, type, geography, or social or cultural diversity, to develop a quality environmental management system ("EMS").\textsuperscript{67} The aim of the standards are to "support environmental protection and prevention of pollution in balance with socio-economic needs."\textsuperscript{68} ISO 14001 sets forth general standards for a basic EMS system.\textsuperscript{69} ISO 14004, Environmental Management Systems — Specifications with Guidance for Use, is a "how-to" manual for companies to follow in the actual implementation process.\textsuperscript{70} Both standards assist organizations to enhance environmental performance through the development of an EMS that has company-wide support. As the introduction to the 14001 standards states:

\textsuperscript{61} See Joe Kirwin, Draft ISO Management Standard Approved; To Be Circulated then Possibly Adopted, Int'l Env't Daily (BNA) (July 6, 1995), available in LEXIS, News Library, Curnws File.
\textsuperscript{62} See id.
\textsuperscript{63} See id.
\textsuperscript{64} See Tilton, supra note 29, at SR5.
\textsuperscript{65} See id.
\textsuperscript{66} See id.
\textsuperscript{67} See ISO 14001, supra note 7, at v.
\textsuperscript{68} Id.
\textsuperscript{69} See id.
\textsuperscript{70} See ISO 14004, supra note 8, § 0.1, at v ("This international standard considers the elements of an EMS and provides practical advice on implementing or enhancing such a system. It also provides organizations with advice on how to effectively initiate, improve or sustain an environmental management system.").
International environmental management standards are intended to provide organizations with the elements of an effective environmental management system which can be integrated with other management requirements, to assist organizations to achieve environmental and economic goals. These Standards, like other International Standards, should not be used to create non-tariff trade barriers or to increase or change an organization’s legal obligations.  

The 14000 standards involve developing an EMS that is part of the company’s overall management structure, with top-level managerial commitment that extends to the entire company and all of its products. The EMS attempts to manage more effectively a company’s environmental performance. The continual-improvement goal, however, has met with some hostility, particularly from industrial nations with strict environmental statutes. Another controversial aspect of the standards is that they do not set any particular level of environmental performance, but simply require that companies have an environmental management program in place. The ultimate responsibility for the development and oversight of the environmental management

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71 ISO 14001, supra note 7, at v.
72 See ISO 14004, supra note 8, § 0.2, at vii. See also Johannson, supra note 31 (“The standard will require companies to be concerned with everything from incoming raw material, through to the final product — a cradle-to-grave approach.”).
73 See ISO 14004, supra note 8, § 0.2, at vii (“An organization should implement an effective environmental management system in order to help protect human health and the environment from the potential impacts of its activities, products or services; and to assist in maintaining and improving the quality of the environment.”).
74 See Kirwin, supra note 61 (“The way it reads now there is no floor of where a company should start. So there could be continual improvement but from a very low level and that does not translate to an improvement on the actual environment.” (quoting Pierre Hauselmann, policy advisor of the World Wildlife Federation)). See also infra notes 99-101 and accompanying text (discussing the disagreement between the United States and the EU with respect to including a mandatory environmental improvement requirement in the standards).
75 See Freeling, supra note 25, at B5.
system rests in the hands of top management, not the environmental compliance officer or division. Thus, the guidelines do not dictate a company’s environmental compliance levels; the individual country’s statutes and regulations perform that task. The guidelines are simply a set of tools to enable management to reach the goal of improved performance.

The standards specifically list the benefits that a company can reap by creating an EMS. These include: assuring customers of commitment to demonstrable environmental management; maintaining good public/community relations; satisfying investor criteria and improving access to capital; obtaining insurance at reasonable cost; enhancing image and market share; meeting vendor-certification criteria; improving cost control; reducing incidents that result in liability; demonstrating reasonable care; conserving input materials and energy; facilitating the pursuit of permits and authorizations; fostering development and sharing of environmental solutions; and improving industry-government relations.

2.2.1. Principles for a Successful EMS

The standards do recognize, however, that the adoption of an EMS does not necessarily lead to optimal environmental performance; the level and availability of environmental technology will also have a large impact on the success of any environmental system. With this caveat in mind, the guidelines identify five principles that are the bedrock of any quality EMS. They consist of: commitment and policy; planning; implementation; measurement and evaluation; and review and implementation.

The first of the five general principles calls for senior management to create and commit to the company’s environmental policy. Top management must make sure that the policy: is appropriate for the nature of the corporation’s activities; includes a commitment to pollution prevention and continued improvement of the policy; includes a commitment to compliance with

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76 See id.
77 See id. ("The draft standards are not intended directly to control the impact of a company’s operations on the environment.").
78 See ISO 14004, supra note 8, § 0.2, at vii.
79 See ISO 14001, supra note 7, at vi.
80 See ISO 14004, supra note 8, § 4, at 3.
environmental statutes and regulations; provides a framework for setting and reviewing environmental objectives; is communicated to all employees; and is available to the public. After developing such a policy, senior management must continually monitor and refine the policy to ensure its success.

Once the environmental policy is in place, the second principle requires the organization to formulate a plan to implement the environmental policy. This process includes identification of environmental aspects and their related impact; identification of legal regulatory requirements relevant to its activities, products, or services; establishment of internal performance requirements; and creation of environmental objectives and targets. Of course, the initial step in formulating an implementation plan is to identify the prior or potential impacts that an organization's activities have on the environment. This involves making legal, environmental, and health and safety risk assessments. This planning process must also establish specific environmental goals or "targets" and a time frame to meet each

81 See id. § 4.1, at 4-7. The standards list the following issues for consideration in establishing an environmental policy: (1) Does the organization have an environmental policy? (2) Does the policy reflect the organization's values? (3) Has the environmental policy been approved by the Board of Directors or other governing body, and has someone been identified and been given the authority to oversee and implement the policy? (4) Does the policy drive the setting of environmental objectives and targets? (5) Does the policy guide the organization towards monitoring the best available technology and management practices? (6) Does the policy support continual improvement? (7) Does the policy state the organization's commitment to monitor performance, to meet or exceed legal requirements, and to consider the expectations of its interested parties? See id. § 4.1.4, at 6.

82 See id. § 4.2.1, at 7.

83 See id. § 4.2.2, at 7-9. Other important issues include: (1) identifying the environmental aspects of the organization's activities, products, and services; (2) determining if the organization's activities, products, or services create any significant adverse environmental impacts; (3) identifying the organization's procedure for evaluating the environmental impacts of new projects; (4) determining whether the location of the organization requires special environmental consideration (e.g., sensitive environmental areas); (5) determining the effects of any intended changes or additions to activities, products, or services to environmental aspects and their associated impacts; (6) assessing the severity of the impact on the environment should a potential process fail; (7) determining the frequency with which the situation will arise that could lead to the impact; and (8) determining the scope — local, regional, or global — of the significant environmental impacts. See id. at 8.
target.\textsuperscript{84}

The third principle of the ISO 14000 Guidelines is implementation, which includes ensuring that there are appropriate resources — human, physical, and financial — available to implement the policy, as well as integrating the EMS into the existing managerial structure.\textsuperscript{85} This necessitates assigning overall responsibility for the program to a senior person or group with sufficient authority and resources, in addition to building awareness and motivation throughout the organization.\textsuperscript{86} Although senior management must oversee implementation of the standards, all employees have a duty to assure environmental performance within the scope of their job responsibilities.\textsuperscript{87}

The organization must consider the environmental impacts of its operations and activities and minimize those impacts through the development or modification of operational procedures.\textsuperscript{88} This should include the establishment of a communication network, both internal and external to the organization, that reports on the environmental activities and performance of the organization.\textsuperscript{89} Finally, the organization needs to develop an emergency preparedness and response plan to deal with unexpected environmental accidents or emergencies.\textsuperscript{90}

The fourth principle requires the organization to establish a system for measuring and monitoring ongoing environmental

\textsuperscript{84} See id. § 4.2.5, at 11-12. The company should also include the environmental management program as part of the organization’s strategic plan and should revise it regularly. \textit{See id.} § 4.2.6, at 12-13.

\textsuperscript{85} See id. § 4.3, at 13.

\textsuperscript{86} See id. § 4.3.2.3, at 15.

\textsuperscript{87} See id.

\textsuperscript{88} See id. § 4.3.3.3, at 20. Operational control activities can be divided into three categories. One involves the prevention of pollution and conservation of resources in new capital projects, process changes and resources management, property (acquisitions, divestitures, and management), and new products and packaging. Another activity is the daily management that ensures conformance with and efficient effectiveness of internal and external organizational requirements. The third activity is strategic management — anticipating and responding to changing environmental requirements. \textit{See id.}

\textsuperscript{89} This communication process demonstrates the organization’s commitment to the environment and raises awareness of the organization’s environmental policies and objectives. \textit{See id.} § 4.3.3.1, at 18.

\textsuperscript{90} See id. § 4.3.3.4, at 20-21. The emergency plan should include details of emergency services, a communication plan, a response plan to different kinds of emergencies, and training plans. \textit{See id.}
This system will not only evaluate compliance with environmental statutes and legislation, but will also measure the overall progress toward the organization’s environmental goals and policies. The system requires periodic auditing of the EMS by an objective, impartial, and properly-trained auditor, but does not require external verifiers.

The fifth and final principle of the guidelines is the development of a review process to achieve improvement of overall environmental performance. Management should conduct the review at regular intervals to assess the environmental targets and objectives, determine the effectiveness of the EMS program, and make the necessary changes or adjustments.

2.2.2. The Guidelines and Disagreements

The guidelines in its current form are the result of a compromise primarily between the U.S. delegation to TC 207 and the European delegation. The disagreements between these two factions are a consequence of the legal realities facing each faction. The U.S. command and control system is much more punitive than the EU’s EMAS, leading the U.S. faction to want less substantive, more procedural, positions. The Europeans, on the other hand, favor a clear commitment to continual improve-
ment and more open, public access to the EMS.\footnote{98 See id.}

Generally, the United States prevailed in the several areas of disagreement between the two factions. One of the biggest areas of disagreement involved environmental performance improvement. The European faction wanted to ensure that the standard would also meet the requirements of EMAS, which requires continual improvement, but also lists specific areas for monitoring and improvement.\footnote{99 See Council Reg. 1836/93, supra note 41, art. 3. The areas listed for continual improvement include: energy, water, and resource use; waste avoidance; recycling; waste transport and disposal; new processes and changes to existing ones; and environmental performance of subcontractors and suppliers. See Roht-Arriaza, supra note 44, at 505.} The U.S. faction favored a more flexible approach, without mandatory improvements.\footnote{100 See Council Reg. 1836/93, supra note 41, art. 3.} Although the ISO standard does call for a commitment to continual improvement, the annex to ISO 14001 recognizes that

\[a\]lthough some improvement in environmental performance can be expected due to the adoption of a systematic approach, it should be understood that the [EMS] is a tool which enables the organization to achieve and systematically control the level of environmental performance that it sets itself. The establishment and operation of an environmental management system will not, in itself, necessarily result in an immediate reduction of adverse environmental impact.\footnote{101 ISO 14001, supra note 7, § A.1, at 6.}

The European and U.S. delegations also disagreed over whether the standard would require a specific standard of pollution control technology. The U.S. delegation worried that this would lead to extensive new liability in the United States if the stated standard exceeded the current regulatory norm.\footnote{102 See Roht-Arriaza, supra note 44, at 506.} As a result of the U.S. objection, the guidelines specify no specific level of technology, but state that “the environmental management system should encourage organizations to consider implementation of the best available technology, where appropriate and where
economically viable. In addition, the cost effectiveness of such technology should be fully taken into account.\textsuperscript{103}

The two factions also conflicted over the proposed incorporation of a BS 7750 requirement that the organization maintain an "environmental effects register" to document the direct and indirect effects of the organization's activities, products or services.\textsuperscript{104} The U.S. delegation balked at the inclusion of the effects register for fear that such a document would be readily discovered by regulators or interested third parties and would be a blueprint for litigation.\textsuperscript{105} Once again, the U.S. point of view prevailed: the guidelines contain no reference to an environmental effects register, but merely refer to the development of a procedure for determining the effects of the organization's activities.\textsuperscript{106}

As the above discussion indicates, the EU and U.S. countries took the most active role in the actual drafting process. Although all countries were welcome and encouraged to send representatives to the technical committees, less developed nations were underrepresented in the drafting process.\textsuperscript{107} This lack of participation may jeopardize the widespread adoption of the standards in developing countries in the future.\textsuperscript{108} As one commentator has proposed, the ISO Secretariat in Geneva should create a fund to help finance the attendance of less developed countries and small

\textsuperscript{103} ISO 14001, supra note 7, at vi-vii.

\textsuperscript{104} See ROTHERY, supra note 38, at 51.

\textsuperscript{105} The fear of information discovered by an organization as a result of voluntary self-audits is the primary reason for most U.S. companies' objections to environmental management and auditing systems. See Eric W. Orts & Paula C. Murray, Environmental Disclosure and Evidentiary Privilege: The Right Balance for Self-Evaluative Environmental Audits, 1 ILL. L. REV. (forthcoming 1997) (draft version) (arguing for a limited privilege).

\textsuperscript{106} See Roht-Arriaza, supra note 44, at 506-07. See also ISO 14001 § 4.3.1 ("The organization shall establish and maintain a procedure to identify the environmental aspects of its activities, products or services that it can control . . . in order to determine those which have or can have significant impacts on the environment.").

\textsuperscript{107} There are several reasons for the lack of representation by developing nations. One is the cost to attend the meetings, which were held in places around the world such as Norway, South Africa, and France. Although the meetings were moved in an effort to maximize participation, developing nations were not well represented. Another possible reason for their lack of participation is their contemplation that they would be out-voted by industrial powers. See Roht-Arriaza, supra note 44, at 525-27.

\textsuperscript{108} See id. at 527.
businesses at the meetings.\textsuperscript{109}

Another important concern, particularly for small and mid-size companies, is the cost of ISO certification. Currently, estimates of the cost of implementing an ISO 14000 range from $8,000 to $100,000 depending on the size of the company and whether the company has previously certified to ISO 9000.\textsuperscript{110} These estimates do not include the costs of implementation of new or improved systems and programs that might be needed as a result of the certification process.

\subsection*{2.2.2.1. Third-Party Certification}

Perhaps the biggest controversy involved in the adoption of the draft standards is the third-party certification issue. Although there is nothing in the ISO documents that requires third-party certification, the key to the effectiveness of ISO 14000 in the global marketplace is the genuineness of the certification of companies that comply with the standards. In order to ensure the quality and conformity of the environmental management systems developed under the auspices of ISO 14000, some sort of verification procedure is necessary. The use of third-party verifiers is based in part on ISO 9000 and on EMAS, both of which require the use of outside auditors.\textsuperscript{111} Many U.S. organizations objected to the imposition of the third-party verification. As one group stated:

A problem with third-party certification is that no formal, international infrastructure for accreditation currently governs the development, operation, and harmonization of ISO 14000 third-party certification programs. Instead,

\textsuperscript{109} See id. at 528.

\textsuperscript{110} See, e.g., Catherine Fahy, Eco-Tech Standards in Horizon, MASS HIGH TECH, June 26, 1995, at 1 (estimating the cost of implementation to be from $8,000 to $25,000); Geoff House, supra note 51, at 73 (Experts believe ISO 14000 certification will cost from ½ to ⅔ the cost of registering under ISO 9000, averaging between $50,000 and $100,000 with small organizations spending as little as $10,000 to $15,000.); Tilton, supra note 29, at SR5 (Small to medium size firms could expend $50,000 to $100,000 or more, and fees for maintaining certification could run about $25,000 per facility.).

these third-party programs are generally developed by private accreditation organizations, in which industry’s interest are underrepresented. Thus, there is not sufficient industry input.  

Certainly, from the point of view of developing countries, third-party certification would be another major obstacle to certification. Very few companies in developing countries would have ready access to independent auditors. Moreover, available auditors might face suspicion in industrial countries if they were not accredited by an international accreditation program.

Another objection to third-party certification is the high cost. In particular, smaller countries and firms in the developing nations view third-party certification as adding yet another substantial cost to an already expensive venture. Because of this additional burden, developing nations opposed the third-party certification requirement. The United States also opposed a mandatory third-party certification in the final draft of ISO 14000, because of its approach to environmental regulation and its fears of increased liability.

### 2.2.2.2. Self-Certification

The U.S. objections to the certification requirement led to the approval of the “self-certification” concept in the draft documents. The choice of whether to employ self-certification or third-party certification may depend on the company’s market.

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112 ISO 14000 Overview, supra note 111, at 3.

113 In testimony before the House Science Subcommittee on Technology, a product safety manager for Caterpillar Inc. stated that third-party certification was of questionable value, and “if bodies that engage in third-party certification excessively hype the benefits of third-party evaluation and organizations are gullible to such hype, ISO 14000 could [add] cost with little initial value.” Third-Party Certification for ISO 14000 Meets Objections from Industry Witnesses, 27 Env’t Rep. (BNA) 445 (June 14, 1996).


115 See id.

116 Clearly, self-certification raises reliability issues with respect to the validity and objectivity of the entire verification process.

117 See Freeman & Belcamino, supra note 14, at S4, S14.
If a company does extensive business in Europe, third-party certification may be demanded as a course of doing business.\textsuperscript{118} As one manager for Illinois-based Caterpillar Inc. has stated, "[i]f having a certification is going to mean something as we conduct business around the world, then we'll go ahead and do it."\textsuperscript{119} The bottom line is that market forces will be the most important factor in an organization's decision as to whether or not to get third-party certification. If a company's commercial customers and suppliers demand it, then the company will have to look closely at the costs and benefits of such a certification and whether self-certification will satisfy those parties.\textsuperscript{120}

From the perspective of developing nations the self-certifying provision may, at first glance, appear to be a good idea. However, this provision is not a panacea. In the global market, particularly in dealing with industrial companies, self-certification may not even be an option; industrial companies may instead demand third-party certification. Thus, the self-certification option should be removed from the ISO standards. Notwithstanding the fact that the standards are procedural rather than substantive, they are of little value if there is no reliable verifying process. If, however, outside verifiers regularly audit the EMS and make the audit available to the public, then trading partners and suppliers can be assured that the company is striving for environmental excellence.

The self-certification issue and the procedural nature of ISO 14000 has led to fears, particularly among environmental groups, that ISO 14000 will have little or no effect on actual environmental compliance or pollution prevention.\textsuperscript{121} As ISO proponents acknowledge, the guidelines do not specify a uniform standard of environmental compliance. Rather, the company must simply certify that it is in compliance with local environmental statutes and regulations. As one critic points out, an ISO 14000 audit is not a compliance audit, but an audit of the procedures and systems set up in the EMS.\textsuperscript{122} The worst-case scenario is that a

\textsuperscript{118} See Bell & Connaughton, supra note 24, at S2.

\textsuperscript{119} Paul Merrion, 14000 Ways To Play Safe, CRAIN'S CHI. BUS., Apr. 15, 1996, at 15.

\textsuperscript{120} See Bell & Connaughton, supra note 24, at S2.

\textsuperscript{121} See Gareth Porter, Little Effect on Environmental Performance, 12 ENVTL. FORUM 43 (Nov.-Dec. 1995).

\textsuperscript{122} See id. at 44 ("Having a 'system in place for compliance' does not necessarily lead to complying with environmental regulations.").
company will have the procedures and system in place, but will actually change very little with respect to environmental compliance or improvement.\textsuperscript{123}

Nonetheless, it is the very procedural nature of the ISO 14000 standards that will bridge the tension between international trade and environmental protection. The standards may not be perfect, but they are set, and companies are starting to become certified.\textsuperscript{124} There is little doubt that agreement could be reached on a substantive international environmental standard. Yet, with the ISO standards, the certifying companies are aware that a trading partner or supplier's certification is based on the local regulations.\textsuperscript{125} As industrial nations and environmental groups continue to put pressure on developing nations to increase environmental protection,\textsuperscript{126} ISO 14000 may be the best hope to raise the bar against environmental protection in these nations.

The ISO 14000 environmental management guidelines are voluntary standards that organizations can choose to follow or not.\textsuperscript{127} If the standards are widely adopted, then their influence over U.S. and global environmental policy could be immense. Both business and environmental groups have expressed concern over different aspects of the standard; for example, the rate of improvement, the level of detail of the EMS, the extent of documentation, and the resources devoted to the process will be left up to the individual organization.\textsuperscript{128} This discretion coupled with the reliability problems of self-certification may lead to doubts concerning the meaningfulness of the certification, particularly with regard to smaller companies or companies in the developing nations. These companies may not have nor want to commit scarce resources to the development of an extremely detailed EMS even if they want or need ISO 14000 certification.

\textsuperscript{123} One author recommends incorporating a cleaner production audit into the ISO framework. "Cleaner production audits, by tracking quantitatively all inputs and outputs at each stage of the manufacturing process, reveal inefficiencies and opportunities for saving money while reducing pollution." Id.

\textsuperscript{124} See Bell & Connaughton, supra note 24, at S2.

\textsuperscript{125} See ISO 14001, supra note 7, at 4.


\textsuperscript{127} See ISO 14001, supra note 7, at v.

\textsuperscript{128} See ISO 14000 Overview, supra note 111, at 2-5.
Yet, with a few changes in the standards, most notably, not allowing self-certification, the guidelines could advance international environmental policy and not be overly trade restrictive.

Section 3 of the article will relate concerns of companies in the developing nations. Their main concern is that ISO 14000 may be used as a barrier to keep them out of global markets, and thus defeat the very purpose of the standards — to improve environmental quality on a global scale.

3. ISO 14000 — A NON-TARIFF TRADE BARRIER?

While U.S. companies have raised many concerns about the potential impact of the standards, the greatest concern among developing nations is the fear that widespread adoption of the standards will lead to non-tariff trade barriers. These countries believe that companies in the more developed nations will not only adopt the standards themselves, but will also require certification of their trading partners. The poorer companies fear that they will be excluded from the global market, because they cannot afford the expense of certification. No country wants to create, albeit unintentionally, a system that fails to assist developing nations in achieving overall environmental improvement, thus further widening the gap of environmental performance between the more developed countries and the less developed areas. The key is to create a balance between the interests of free international trade and transboundary environmental improvement.

The tension between environmental protection and free international trade is not new. In the past decades, the global

129 The basic U.S. concern involves the confidentiality of the documentation generated by the standards. See supra notes 104-06 and accompanying text. See generally Orts & Murray, supra note 105 (proposing "self-evaluative" practices as a solution to the confidentiality debate).

130 See International Standards, supra note 53, at D-10 (Thailand and other Asian countries raise fears that ISO 14000 "may be used as a barrier to imports from poorer countries unable to meet the more stringent management standards in the developed world.").

131 See id.

132 But see Dominic Nathan, First Companies To Get ISO 14000 Certification, STRAITS TIMES (Singapore), June 27, 1996, at 44 (describing Singapore's encouragement of its companies to certify to ISO 14000 in order not to be locked out of world markets by making grants available to cover up to 70% of the cost of certification).
environment has ascended to the world stage demanding immediate and long range attention. "Free traders," however, fear that environmental regulation is merely another form of protectionism that will undermine the economic welfare of millions, particularly in developing nations. 133 Such tension has become the source of much unwarranted hostility, because both groups have similar goals — improving the quality of life, both economically and environmentally, for the entire globe. 134 Undoubtedly, environmental protection will result in trade barriers. The difficulty lies in balancing meaningful environmental restrictions with the increasing "international economic interdependence" that necessitates open international markets. 135 ISO 14000 is uniquely suited to be a means to reach both goals.

3.1. Non-Tariff Trade Barriers ("NTBs") and GATT 1994

After the stock market crash of 1929, the United States and most countries tried to gain economic advantage by instituting rather substantial trade barriers in the forms of tariffs or quotas on imports. 136 As the world economy deteriorated, individual countries increased trade restrictions in an effort to shore up their domestic economy. This resulted in retaliatory tariff increases aggravating the situation. 137 The developed nations finally realized that only through lowering the trade barriers could

133 See Jackson, supra note 1, at 1228 ("Trade liberalization is important for enhancing world economic welfare and for providing a greater opportunity for billions of individuals to lead satisfying lives. Measures that restrict trade often will decrease the achievement of this goal.").

134 See id. ("Indeed, there is some evidence that environmental policy and trade policy are complementary, at least in the sense that increasing world welfare can lead to citizen demands and governmental actions to improve protection for the environment.").

135 See id. at 1228-29 ("Such interdependence increases trade in both products and services across national borders and brings many benefits to participating countries.").

136 See Bradley Larson, Introduction to Non-Tariff Barriers to International Trade, 7 BRIDGEPORT L. REV. 155 (1986).

137 For example, the United States, in 1930, enacted the Smoot Hartley tariff bill in an effort to give domestic industry an advantage over foreign competition. The bill raised tariffs by an average of 52%. As a result, U.S. trading partners retaliated by raising their tariffs. See DANIEL C. ESTY, GREENING THE GATT 243 (1994).
individual nations and the world economy become viable again.\textsuperscript{138} In 1934, Congress passed the Reciprocal Trade Agreement Act,\textsuperscript{139} giving the President the authority to enter into negotiations and trade agreements. The Act gave U.S. negotiators the authority to try to reach agreements on tariff reduction as well as on intentional or unintentional restrictions on imports by means other than a tariff.\textsuperscript{140} Thus, the term non-tariff trade barrier was born.\textsuperscript{141}

Despite the granting of authority to enter into such agreements, no serious effort took place until after World War II. Great Britain and the United States, along with other Allied countries, began to focus on the creation of international institutions to manage global economic relations.\textsuperscript{142} At the Breton Woods Conference in 1944, the Allied leaders agreed to create an International Bank for Reconstruction and Development ("IBRD" or "World Bank") and the International Monetary Fund ("IMF") to help finance postwar reconstruction.\textsuperscript{143} They also agreed on the need for an international structure to promote international trade.\textsuperscript{144}

The United States, in December of 1945, proposed the creation of an International Trade Organization ("ITO") to liberalize international trade.\textsuperscript{145} Unfortunately, many countries, including the United States, were wary of free trade.\textsuperscript{146} The ITO proposal agreed upon in Havana in 1947 ("the Havana Charter") was therefore less trade liberalizing than the one envisioned at the Breton Woods Conference. At the Havana Conference the delegates approved an interim measure that committed the participants to basic principles of international trade.\textsuperscript{147} Unlike

\begin{itemize}
\item \textsuperscript{139} Ch. 474, 48 Stat. 943 (1934), amending Tariff Act of 1930, Ch. 497, 46 Stat. 590 (1930).
\item \textsuperscript{140} See § 350, 48 Stat. at 943-44.
\item \textsuperscript{141} See Larson, supra note 136, at 156.
\item \textsuperscript{142} See \textit{C U D D I N G T O N \& M C K I N N O N}, supra note 138, at 7, 10.
\item \textsuperscript{143} See \textit{E S T Y}, supra note 137, at 244.
\item \textsuperscript{144} See \textit{id.}.
\item \textsuperscript{145} See \textit{id.}.
\item \textsuperscript{146} See \textit{id.}.
\item \textsuperscript{147} See \textit{id.}.
\end{itemize}
the ITO, the interim measure, the General Agreement on Tariffs and Trade ("General Agreement"), did not require ratification.\textsuperscript{148} The United States' acceptance of the General Agreement was an executive action that did not require congressional approval.\textsuperscript{149} The agreement was intended as a temporary measure until approval of the ITO.\textsuperscript{150} The ITO, however, was never approved. The Truman administration withdrew the ITO proposal in 1950.\textsuperscript{151} Without U.S. support the ITO died.\textsuperscript{152} Although GATT was never meant to be the primary international trade institution, that is what it became. Nevertheless, GATT did not include enforcement mechanisms nor an administrative structure.\textsuperscript{153} The U.S. Congress has never approved the General Agreement.\textsuperscript{154}

### 3.1.1. Levelling the Playing Field: Principles of GATT

The General Agreement\textsuperscript{155} is built on two basic principles. The first is "most favored nation" status.\textsuperscript{156} This principle does not mean that one country favors another in trading, but rather that all countries following the General Agreement treat each other equally.\textsuperscript{157} The second principle is the concept of national treatment — once a product is imported into a country, that product must be treated as a domestic product.\textsuperscript{158} These two

\textsuperscript{148} See id.
\textsuperscript{149} See id. at 245.
\textsuperscript{150} See id.
\textsuperscript{151} See id.
\textsuperscript{152} See ESTY, supra note 137, at 245.
\textsuperscript{153} See id.
\textsuperscript{154} See id.
\textsuperscript{155} While the agreement is a complex set of documents that includes 38 articles, the basic underlying premise is "nondiscrimination — or more simply, do unto others as you would have them do unto you." \textit{Id.}
\textsuperscript{156} See General Agreement on Tariffs and Trade, T.I.A.S., No. 1700, 55 U.N.T.S. 188, art. I [hereinafter GATT] ("[A]ny advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating or destined for the territories of all other contracting parties.").
\textsuperscript{158} "The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin . . . ." GATT,
basic principles were intended to level the playing field of international trade among the contracting parties to the General Agreement. 159

Under the General Agreement, levelling the playing field means liberalizing international trade in order to increase the "comparative advantage" of each individual country. 160 The motive behind this is that if every country is operating efficiently then the world economy is better off. 161 Thus, the trading rules under the General Agreement are designed to decrease governmental interference with international trade. Unfortunately, there are certain types of governmental rules (i.e., environmental regulations) that conflict with the goal of trade liberalization. As one commentator has stated, "[i]t is this 'policy discord' that raises the difficult question of how to accommodate the competing values of trade liberalization on the one hand, and environmental protection on the other, without undermining the basic principles of both policy sets." 162

3.1.2. Non-Tariff Trade Barriers: Agreements on Technical Barriers to Trade

While the initial trade and tariff negotiations under the

supra note 156, art. III(2). See also Philip M. Nichols, GATT Doctrine, 36 VA. J. INT'L. L. 379, 386 (1996) ("National treatment means that once a good has entered a country, it cannot be treated less favorably than similar domestic goods, especially with regard to internal taxes and regulations.").

159 See ESTY, supra note 137, at 246.

160 See Jackson, supra note 1, at 1231. "The notion of comparative advantage relates partly to the theories of economies of scale. When nations specialize, they become more efficient in producing a product (and possibly also a service). If they can trade their products or services for the different products or services that other countries specialize in producing, then all parties involved will be better off because countries will not waste resources producing products that other countries can produce more efficiently." Id.

161 See Stewart, supra note 1, at 2042 ("Trade advances global welfare by promoting specialization in accordance with comparative advantage, expanding opportunities to realize scale economies, tightening the discipline of competition, and stimulating wide dissemination of knowledge and technological innovation.").

162 Jackson, supra note 1, at 1232.
General Agreement focused on tariff reductions, the focus recently has turned to NTBs. Not surprisingly, as countries reduced tariffs, they implemented greater use of NTBs. Virtually any government action can be characterized as a NTB.

In 1973, during the Tokyo Round of Multilateral Trade Negotiations ("MTN"), elimination of NTBs was a major focus of discussion. Ultimately, this round produced a number of "codes" that were special side agreements dealing with the problem of NTBs. One of these, the "Agreement on Technical Barriers to Trade" (the standards code), required that product standards, certification systems, test methods, and labeling processes be as unrestrictive to trade as possible. This code also encouraged the establishment of international standards.

The effort to restrict NTBs was taken even further with the signing of the Final Act of the Uruguay Round in 1994. The

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163 Under a process of "tariffication," a country could not impose a tariff higher than the one it had agreed upon; this process was highly successful. See John H. Jackson, The World Trading System: Law and Policy of International Economic Relations 115-31 (1989).


165 See id. at 305-06.

166 See D.M. McRae & J.C. Thomas, The GATT and Multilateral Treaty Making: The Tokyo Round, 77 AM. J. INT'L L. 51, 56 (1983). The contracting parties to the General Agreement have conducted eight of these multilateral negotiating rounds in addition to the regular meetings of the contracting parties and the meetings of the GATT Council (comprised of representatives of any contracting party who wanted to participate and which met monthly to conduct GATT business). The first five rounds, Geneva (1947), Annecy (1949), Torquay (1950), Geneva (1956), and Dillon (1960-61) dealt with tariff reduction. The next two, Kennedy (1962-67) and Tokyo dealt with NTBs. See Nichols, supra note 158, at 390-91.


170 See Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, LEGAL INSTRUMENTS —
Uruguay Round established the World Trade Organization ("WTO") as a formal institution, and ushered in a new era in international trade relations. As a result of the creation of the WTO, the 1947 version of GATT ceased to exist. An important part of the WTO Agreement is the Agreement on Technical Barriers to Trade (TBT Agreement).

The TBT Agreement recognizes that environmental regulation and protection will result in certain barriers to trade. However, protection of the environment is a "legitimate objective" that justifies the use of trade restrictive regulation. The Agreement further states that the use of these restrictive regulations may not create any "unnecessary obstacles to international trade." The regulations must not be "more trade-restrictive than necessary" to meet the standard's objective. The Agreement lists two conditions of "legitimate" regulations. First, the regulation must be "necessary" for the achievement of a "legitimate objective." Although "legitimate objective" is not specifically defined in the Agreement, Article 2.2 lists environmental protection; protection of human, animal and plant health or safety; and prevention of consumer deception as possible legitimate objectives.

Secondly, the regulations should correspond to international standards. 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

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See id. at 1143. The WTO incorporated the GATT 1947 General Agreement into its charter. In effect, the WTO absorbed GATT 1947.

The WTO's charter includes three trade agreements annexed to the agreement. They are the Multilateral Agreements on Trade in Goods, the General Agreement on Trade in Services, and the Agreement on Trade-Related Aspects of Intellectual Property Rights. See Nichols, supra note 158, at 391.

See TBT Agreement, supra note 16, art. 2.4. This Agreement established "international standards and conforming assessment systems [to improve] efficiency of production and facilitate... international trade." Id.

Id. art. 2.2.

Id.

Id.

Id.

See id.

See id.
The Agreement allows for deviation from international standards when the standard is inappropriate for the achievement of the regulatory goal. The burden of proof is on the member to justify such a deviation. The Agreement's mandate that the standards are "rebuttably presumed not to create . . . unnecessary obstacle[s] to international trade" further encourages the use of the standards. There are two exceptions to the adoption of international standards: where the standard is ineffective or inappropriate because of geographic or climatic differences or technical problems; and where the standard is below the level of protection currently mandated by the government.

3.2. ISO 14000: A Step to an Emerging International Environmental Policy

Thus, the TBT Agreement creates a clear preference for international standards such as ISO 14000. However, the ISO standards are not "technical regulations," as prescribed by the agreement. They are, instead, procedural guidelines for establishing environmental management systems. No government currently mandates use of environmental management systems by companies doing business in that country. The ISO standards, however, are a much less significant barrier to global trade than the "technical" guidelines and should be more consonant with international trade.

Now that the ISO 14000 environmental management standard has been approved and the other standards — auditor qualifica-
tions, eco-labeling, and life cycle assessment — are in various draft stages, the question remains how these standards will interact with GATT 1994/WTO. Because the ISO standards are voluntary, they would not appear to conflict with GATT 1994. Certainly, a conflict would arise if a government mandates use of the standards, as several have been contemplating. Nevertheless, even if the standards are not governmentally mandated, if they are strongly encouraged by, for example, U.S. EPA, as a precondition into one of the new regulatory reduction pilot programs such as Project XL or the Common Sense Initiative, then the standards may be viewed as NTBs. If these pilot programs are incorporated into the U.S. environmental regulatory scheme, then foreign companies unable to meet ISO 14000 certification could be blocked from many U.S. markets.

Furthermore, because the standards are not substantive, there is a lesser chance that they could be challenged under GATT. The ISO 14000 standards are guidelines for companies to promulgate procedures for assuring environmental performance and improvement. Companies are not required to meet any international product or process standard. As the introduction to ISO 14001 states “[t]hese standards . . . should not be used to create non-tariff trade barriers or to increase or change an organization’s legal obligations.” Thus, the voluntary nature of the standards, along with their non-substantive nature, are not likely to lead to challenges to GATT 1994.

Presuming that the standards are not formally or informally adopted by a government and that there is no formal GATT challenge to them, the fact remains that they could have a profound effect on the international economic community. Thus, ISO 14000 should be used as a means to create the first step to a transboundary environmental regulatory system that will strengthen environmental protection with minimal interference to global trade.

Developing nations historically have been suspicious of the

187 See supra note 19 and accompanying text.
188 See ISO 14001, supra note 7, at v.
189 See id.
190 See id. at 4.
environmental motives of industrial countries. They have characterized the environmental trade measures of industrial countries as "eco-imperialism," inhibiting the developing country from using its domestic resources. Malaysia's Minister of the Environment, Rafidah Aziz, stated at the end of the Uruguay Round that "environmental issues are now clearly being used to promote protectionist motives, particularly to keep out imports from countries which have a better competitive edge and comparative advantage." These countries view any restriction on trade as a threat to an already precarious economy.

3.2.1. The Use of Trade Sanctions To Enforce Environmental Policy

The U.S. attempt to protect dolphins from being slaughtered in tuna fishing nets illustrates the tension between environmental regulation and international free trade. In 1990, the Ninth Circuit enjoined the importation of yellowfin tuna from Mexico because of the number of dolphins killed in Mexican nets. The court based its decision on provisions of the Marine Mammal Protection Act ("MMPA"). When Mexico challenged the decision under GATT 1947, a GATT dispute resolution panel found that the U.S. ban violated Article III of the GATT's national treatment requirement. The panel found that the environmental exemptions in Article XX (referring to protection of animal life and health and conservation of natural resources) did not extend to trade sanctions targeted at another country's policies. Environmentalists and U.S. legal scholars widely criticized the deci-

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192 See id.
194 See Earth Island Inst. v. Mosbacher, 929 F.2d 1449 (9th Cir. 1991).
197 See Tuna I, supra note 196, §§ 5.24-5.34.
Nevertheless, most other countries, including developing nations, supported it. Later, Mexico in a move to quell opposition to NAFTA, decided not to pursue its GATT action. As a consequence, the decision never became GATT law under GATT 1947. The yellowfin tuna dispute clearly illustrates the wide divide between the United States and developing nations regarding the use of trade sanctions to force environmental protection.

Since Tuna I, the conflict between free international trade and environmental protection has come dramatically into focus. Many proposals have been made as to how to reach a compromise. After the Tuna I decision, the GATT Secretariat included a twenty-eight page insert in its 1992 annual report concerning the environment and trade. This report recommends abandoning trade sanctions altogether as a means of affecting environmental policy. The Secretariat favors negotiating multilateral environmental agreements, or absent that, requesting a waiver from the GATT rules to impose a trade sanction.


199 See Blank, supra note 126, at 75; see also, Steve Charnovitz, Environmental and Labour Standards in Trade, 15 WORLD ECON. 335, 338 (1992) (noting that the decision garnered the approval of delegates from 35 countries at the 1992 GATT Council, while the U.S. position received no support).

200 See Charnovitz, supra note 199, at 338. There was also a second tuna/dolphin GATT decision involving an embargo of tuna from the European Union World Trade Organization. See GATT Dispute Settlement Panel Report on United States Restrictions on Imports of Tuna, May 20, 1994, 33 I.L.M. 839 (1994) [hereinafter Tuna II]. The panel also decided against the U.S. ban. See id.

201 Indonesia submitted an interested party brief in support of Mexico in Tuna I that stated "[t]he MMPA had been used as a means to . . . shield United States producers from import competition by exploiting public sympathy for dolphins, which were in any event not a species listed as endangered under CITES.” Tuna I, supra note 200, § 4.15.

202 GATT, 1 INTERNATIONAL TRADE 19 (1990-91).

203 See id. at 22. The report states “if most of GATT’s contracting parties agree to participate in a particular multilateral environmental agreement, the consistency of its trade provisions with GATT is not likely to be a problem since there would be enough votes to secure a waiver [currently requiring a 2/3s vote of the parties].” Id. at 26.
3.2.2. Considerations in Developing an International Environmental Standard

Clearly, a multilateral environmental agreement ("MEA") is one, and perhaps the best, solution to the transboundary environmental problem. However, such an agreement may take years to negotiate and may result in the lowest common denominator as the standard — the "race to the bottom." Yet, a number of scholars have called for harmonization in environmental and labor standards. Professor Richard Stewart states, "harmonization would benefit consumers in all nations by eliminating differences in environmental standards that undercut producers' ability to achieve economies of scale, increase the transaction costs of complying with different state regulations, and hinder trade and its attendant benefits." While acknowledging the potential benefits of harmonization, Stewart also points out the difficulties in reaching any agreement on harmonization, in part, because of the lack of economic and technical resources within developing nations. Because of their urgent need for economic development, citizens of developing nations place a lower value on protecting the environment than those in developed countries.

Although some efforts have been made to provide financial assistance for environmental protection in developing countries, financial assistance is not the answer. The money is simply not there. More importantly, financial aid merely increases dependence on industrial nations. Some commentators have proposed that industrial countries should link aid to developing nations to a requirement that certain environmental

204 Stewart, supra note 1, at 2045-46.
205 Id. at 2098.
206 See id. at 2099.
207 See id.
209 See Blank, supra note 126, at 91 (financial assistance increases dependency on industrial nations and can undermine sovereignty).
standards be met. This proposal, however, has been criticized as a modern form of colonialism.\textsuperscript{210}

Without suggesting an abandonment of efforts to negotiate international environmental standards, it is nevertheless worth recognizing that the process will be slow and arduous. With many nations involved, each with its own interests and agendas, there is little likelihood that any MEA could be negotiated successfully and quickly. Moreover, there is little guarantee that the agreed-upon standards would not turn into a race to the bottom in an effort to have global participation. In that event, the United States and other industrial countries might withhold their agreement in order to protect the dramatic environmental strides made in the last thirty years.

Although there have been environmental agreements negotiated under the auspices of the United Nations Environmental Programs ("UNEP") and the United Nations Conference on Environment and Development ("UNCED"),\textsuperscript{211} they are not the equivalent of a comprehensive environmental transboundary regulatory system. UNEP and UNCED should continue to strive to negotiate MEAs and to encourage as many countries as possible, particularly developing nations, to participate. ISO 14000 is perfectly suited to be the first step to developing a meaningful transboundary environmental policy.

3.2.3. Advantages of Using ISO 14000 To Develop a Meaningful International Environmental Policy

ISO 14000 has the advantage of being a voluntary standard, not mandated for use by any government.\textsuperscript{212} In addition, because the standards are not substantive, the standards avoid the problem of a race to the bottom. Consequently, ISO 14000 not only can avoid the race-to-the-bottom problem, but can actually


\textsuperscript{212} See supra notes 127-28 and accompanying text.
lead to a "race to the top." Those who believe that industries that voluntarily adopt more stringent environmental standards will benefit economically increasingly embrace this view.\footnote{213} As explained by Professor Stewart, the argument has two parts. First, there will be an international movement toward more protective environmental regulation, particularly to deal with global problems such as climate change.\footnote{214} As countries develop more stringent environmental regulations, industries must develop processes and products that pollute less.\footnote{215} As Stewart states, "[w]hen other nations eventually 'follow the leader' and adopt similarly stringent requirements, the leader country's industry will enjoy a dominant position in the growing international market for 'green' technology. This is the 'race to the top.'"\footnote{216}

The second part of the argument is that these stringent environmental regulations will stimulate innovation, promote investment in more advanced pollution-prevention technologies, and strengthen industrial competitiveness.\footnote{217} Stewart recognizes that these competitive benefits are probably insufficient to convince a country to adopt more strict environmental regulations.\footnote{218} However, he maintains that, when coupled with other innovation-promoting instruments, such as environmental contracting\footnote{219} and market-based incentives,\footnote{220} such competition will lead to an improvement in environmental quality.\footnote{221}

ISO 14000 is the type of market-based incentive that can fuel the race to the top. It can avoid GATT problems, because the
standards are not governmentally mandated. Yet, it is not without teeth; the standards call for continual environmental improvement. The standards do not require harmonization of environmental regulations; the certifying company merely needs to comply with local regulations. This should ease initial fears of developing countries that they would be required to meet the more stringent regulatory standard of an industrial country.

ISO 14000 will also spur a "follow-the-leader" pattern. As more and more companies certify to the standards, and in turn, require certification from their suppliers and trading partners, there can only be environmental improvement. Certainly, the success of ISO 9000 and its ability to produce a domino effect of certification of quality assurance inspires significant hope for the same success of ISO 14000. While waiting for international organizations such as UNCED to negotiate harmonized global environmental standards, the private, voluntary measures of ISO 14000 can level the international trade playing field and lead to environmental improvement.

3.2.4. Weaknesses of ISO 14000

ISO 14000, however, is not without weaknesses. It was drafted as a compromise, and the drafters were not unsympathetic to the concerns of less developed countries, including, the lack of substantive standards. Nevertheless, certain changes could be made that would strengthen the standards. One potential change is requiring outside, third-party certifiers. Although the developing nations objected to such a requirement on the basis of its high cost, if the standards are to have any real meaning, third-party certification must be required. Thus, the standards should be amended to require outside verifiers. This requirement could be phased in over several years to allow companies in developing nations to make the financial commitment.

Another potential change would be to require some mechanism for public disclosure of crucial environmental information,

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222 See discussion supra section 2.2.
223 See ISO 14001, supra note 7, at 4.
224 See discussion supra section 2.1.
225 See Roht-Arriaza, supra note 44, at 504-05.
226 See supra notes 110, 113-14 and accompanying text.
similar to the "environmental effects register" required by BS 7750.227 This document would be available to interested parties. In this way, suppliers and trading partners, as well as environmental groups, could determine actual environmental progress. TC 207 proposed this change in the draft stages of ISO 14000, but the United States vehemently opposed it because of fear of increased litigation and fines.228 The adoption of a limited privilege, however, would likely alleviate this fear.229 As in the case of outside verifiers, if the standards are to be truly significant, there must be a demonstrable commitment to environmental progress. The more information is available on a global basis, the more likely that real improvement will be made. The presence of developing countries is vital during the future drafting process for the other ISO 14000 standards, as well as modifications to the current ones. Only this will guarantee true global participation.

4. CONCLUSION

Most of the dialogue concerning the tension between the reduction of transboundary environmental risk and international trade has focused exclusively on the role of government. ISO 14000 is a means of temporarily bypassing the governmental role in favor of a private solution. This is not to say that governmental action is not important. Instead, the standards are a means of taking the first steps toward harmonization while the governments negotiate meaningful standards.

Even if the ISO standards do not technically run afoul of GATT or any other international trade agreement, there can be little doubt that the standards are a de facto trade barrier. Environmental improvement on a global basis and truly "free" trade are basically incompatible ideals. The standards, with some modifications, will not be the mechanism of further skewing the environmental quality between less developed countries and industrial ones. Rather, they will bridge the gap, taking the first step to a transboundary environmental policy.

227 See ROTHERY, supra note 38, at 51.
228 See supra notes 104—05 and accompanying text.
229 See Orts & Murray, supra note 105, at 653.