

ISO 14001 Environmental Management Systems—Hype or Hope?

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There has been a great deal of discussion about the International Organization for Standardization's ISO 14001 standard for environmental management systems. Articles in trade magazines tout the cost-saving benefits, improved public image, and competitive edge to be realized by adopting the standard. A growing number of implementation manuals are available to guide business owners and managers through the process of developing an ISO 14001 environmental management system. Great hope has been placed on this international standard, which has even been described as "the new master scheme for the protection and preservation of the environment, for sustainable development of life and improving the ecosystem" (Sayre, 1996; back cover). Despite the hype, ISO 14001 is not without its critics, and the standard is the subject of significant debate.

Among the issues in question are the standard's actual potential for improving an organization's environmental performance, and whether or not the standard represents a step toward sustainable global industrial development. This article briefly summarizes these two critical arguments, with an eye toward providing some analytical context to apply to the question: ISO 14001—hype or hope? The article draws largely from works by Riva Krut, PhD, Director of Benchmark Environmental Consulting in Portsmouth, Maine, and her Benchmark associate Harris Gleckman, PhD (now with the United Nations Department of Economic and Social Affairs); Naomi Roht-Arriaza, Professor of Law at the University of California, Hastings College of the Law, in San Francisco; and Jason Morrison, Senior Research Associate at the Pacific Institute for Studies in Development, Environment and Security, in Oakland, California.

Background: The International Organization for Standardization and the ISO 14000 Series

The Geneva-based International Organization for Standardization (ISO) was formed in 1946. The commonly used short name "ISO" (pronounced "eye-so"), which is generally assumed to be a scrambled English-language acronym, is also a Greek word meaning "equal" (Woodside et al., 1998). The Organization's original mission was to develop technical and engineering standards for industry, with the goal of enhancing international trade by providing cross-border conformity. ISO is a private organization whose membership is comprised of some 130 national standards-setting bodies. The US member is the American National Standards Institute (ANSI).

ISO began work on the ISO 14000 series of environmental management systems standards in the early 1990s, in response to the 1992 United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro. This high profile conference placed a strong emphasis on "sustainable development," as did two of the most famous documents that emerged from it—The Rio Declaration and Agenda 21.

ISO 14001, the central member of the ISO 14000 series, specifies the components required for a certifiable environmental management system. The other standards in the series are guidelines only, and describe environmental auditing, reviews, site assessments, labeling, performance evaluation, and life cycle assessment. ISO 14001 was published in 1996, in the company of several supporting standards concerning implementation and environmental auditing. The other standards in the series have been published more recently or are still under development (ISO Technical Committee 207, 2000).

As with all of ISO's standards, adoption of ISO 14001 is voluntary. An organization choosing to develop and implement an ISO 14001 environmental management system can adhere to all or just selected parts of the standard. In order to receive third-party certification, however, the system must contain the following five components: a written environmental policy; a plan to ful-

fill that policy; the capability to achieve the commitments included in the policy; procedures to measure, monitor and evaluate environmental performance; and procedures for periodic review and continual improvement.

ISO 14001's Popular Image

In general, ISO 14001 is promoted along the lines of competitive business interest, rather than for its environmental potential, although claims of "green" and "certified environmentally friendly" are being made by and about businesses that have implemented the standard. Trade magazine articles and implementation manuals typically emphasize the potential for ISO 14001 to improve an organization's bottom line, enhance its public image, and give it a competitive advantage. Other cited benefits include improved relationships with regulatory agencies, and lower legal liability exposure. It is widely asserted that, although voluntary, ISO 14001 certification will soon become a *de facto* requirement for doing business in both national and international markets.

ISO 14001's Potential for Improving Environmental Performance

ISO 14001 is explicitly process-based, not performance-based. Certification depends not on an organization's actual environmental performance, but rather on evidence of its conformance with its own internally-developed environmental management system. The environmental policy—the only environmental management system component which is required to be made public—must include "a commitment to comply with relevant environmental laws and regulations" (ISO 14001, 1996). Actual achievement of compliance, however, is not required. The environmental policy must also include commitments to "continual improvement and the prevention of pollution" (ISO 14001, 1996). The organization is free to use its own discretion in creating procedures and goals for meeting these commitments.

The fact that ISO 14001 contains no substantive performance requirements to back up these policy commitments is a source of

concern. The internally-defined nature of the system makes it possible for an organization to be out of legal or regulatory compliance, and even to backslide in environmental performance relative to its own baseline or self-defined targets, while still fulfilling the basic ISO 14001 specifications and maintaining a certifiable environmental management system.

Another cause for concern lies in the definitions ISO 14001 uses for several key concepts. Although the linguistic distinction is subtle, the difference between “pollution prevention,” which is proactive and refers to up-front reduction of the amount of waste produced, and the standard’s diluted definition of “prevention of pollution,” which includes recycling, treatment, control, and end-of-pipe strategies, is crucial. “Continual improvement,” which lends itself to being understood as improvement in environmental performance, in fact refers only to improvement to the environmental management system itself. Some critics also point out the somewhat confusing distinction between “environmental aspects” and “environmental impacts.” An organization must identify the “aspects” of its activities, products or services which may have “significant impacts on the environment” (ISO 14001, 1996). “Aspects” and “impacts” are defined extremely broadly, and the interpretation of “significant” is left to the organization’s discretion. Once identified, however rigorously or loosely, these aspects need only be considered, not necessarily included, in the process of setting the organization’s goals and objectives.

The standard’s lack of emphasis on public accountability is also disturbing. ISO 14001’s more stringent European predecessors, British Standard 7750 (BS 7750) and the European Union’s Environmental Management and Auditing Scheme (EMAS) both require public disclosure of environmental performance data. ISO 14001 does not. Such public scrutiny would certainly increase ISO 14001’s credibility, as well as provide solid impetus for real improvements in environmental performance.

Examples of the effectiveness of an ISO 14001 environmental management system are often given in terms of reductions in

energy, utility, and waste disposal costs. All of these improvements have relatively short payback periods compared to the investments made to achieve them, but may be only marginal in terms of an organization’s overall environmental impacts. There is concern that, once the short-term bottom line benefits have been realized, the ongoing costs of maintaining a certified environmental management system will discourage businesses from exploring more environmentally meaningful initiatives.

ISO 14001 and Sustainable Global Industrial Development

Does ISO 14001 represent a step toward sustainable global industrial development? With this question the debate around ISO 14001 becomes infinitely more complex, given the broad range of interpretations of the concept of “sustainable global industrial development.” With the possible exception of “industrial,” each of these words invites a wide variety of definitions. Taken together, they are rife with contention, and weighty with oxymoronic potential. There is, though, one point of general agreement: continued progressive environmental degradation should not be part of the plan.

Certainly, and despite its putative origins in Agenda 21, since ISO 14001 in its current form does not guarantee improved environmental performance at the level of the individual organization, it is unlikely to generate any collective movement toward the environmental considerations of global sustainability. Indeed, the very scale of the standard’s focus—on individual organizations rather than on overall industrial processes, practices and products—de-emphasizes bigger-picture concerns. Krut and Gleckman argue that in several ways ISO 14001 actually reverses the international environmental momentum begun with UNCED and Agenda 21 (Benchmark Environmental Consulting, 1995; Krut and Gleckman, 1998).

Concerns about the ISO’s process for drafting the ISO 14000 series can be seen as falling within the domain of global sustainability considerations. Specifically, there are concerns about the degree of meaningful access to the negotiations. While the ISO’s process was open to participation

by less-developed countries, non-governmental organizations, and government environmental agencies, the process has been criticized as having been dominated by private industrial interests from highly-industrialized northern countries (ISO/TC 207 Contact Group, 2000; Seifert, 1998). In travel expenses and time, the substantial costs of effective participation proved a much greater barrier to representatives from non-governmental organizations and from less developed countries than to the large-industry representatives of ISO’s member bodies. Similarly, the interests of small and medium-sized organizations are also considered to have been under-represented.

Conclusion: ISO 14001—Hype or Hope?

Beyond both the promotional hype and the professional critiques, then, is there hope for ISO 14001 as an “environmental” management tool? None of the authors of the critiques surveyed for this article rejects the notion of international environmental management standards per se, although they are unanimous in their disappointment with ISO 14001’s lack of rigor. Responsible criticism is always accompanied by recommendations for improvement, and ISO 14001’s critics make no exception to this rule. Krut and Gleckman (1998) propose an “ISO 14001 Plus,” which would add substance to the existing standard by requiring both compliance with environmental laws, and public disclosure and participation. Morrison et al. (2000) agree that the standard must be strengthened in these ways, that true pollution prevention should be emphasized, and that balanced and adequate representation in ISO’s process must be ensured. Taking a broader view, Roht-Arriaza (1995) recommends a new international regulatory model that would emphasize “regulation of *producers* and *products*, rather than states, as the point of regulation” (emphasis in original). She suggests that promotion of the ISO 14001 standard be put within the framework of “a broader effort at building regional regulatory convergence and cooperation” (Roht-Arriaza, 1997).

While the standard makes it easy for “bad actors” to certify and take on the poten-

tially deceptive appearance of being "green," it does include language providing encouragement for going beyond simple compliance with environmental laws and regulations. Hope that ISO 14001 as-is will result in real reduction in negative environmental impacts lies with those organizations that choose to go beyond the standard's minimal requirements. The jury is still out on whether or not enough organizations will do so to make ISO 14001 environmentally relevant. Only if the standard is applied with the long-term, environmentally salient intent of considering and managing the impacts of industrial activity on the environment, rather than the short-term market interests of image, economic advantage, and controlling the impacts of environmental concerns on corporate activities, will there be a substantive move beyond hype and toward hope.

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