



WILEY SERIES IN ENVIRONMENTAL QUALITY MANAGEMENT  
JOHN T. WILLIG, SERIES EDITOR

# MOVING AHEAD WITH ISO 14000

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*Improving Environmental  
Management and  
Advancing Sustainable  
Development*

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Edited by PHILIP A. MARCUS  
& JOHN T. WILLIG

# **MOVING AHEAD WITH ISO 14000**

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and Advancing Sustainable Development**

**Edited by  
Philip A. Marcus  
and  
John T. Willig**

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# Introduction

The release of the new ISO 14000 standards on environmental management is a watershed event for environmental professionals and their companies. Businesses of all sizes will need to face what is expected to become the de facto international standard for proactive environmental practices and a requirement for conducting business overseas.

In the United States, at least, there have been two major drivers forcing companies to consider adopting the ISO 14000 standards: first, continued access to markets and customers who require conformance to the standard as a condition of business, and second, the interest of regulators in adopting the ISO 14001 environmental management systems standard in regulatory reform initiatives at the federal and state levels.

ISO 14000 has been described as the new global passport for international trade. A prime motivation for seeking conformance with the ISO 14001 environmental management systems specification is concern that companies not willing to move ahead with ISO 14000 may do so at their own peril.

The extent of worldwide participation in the development of the ISO environmental standards under the auspices of Technical Committee 207 is ample evidence of this. Hundreds of delegates and technical experts from over 50 nations have been engaged in the drafting and approval of the standards. These delegates and experts represent the entire cross-section of stakeholders with environmental concerns, including government, standards bodies, business and environmental groups.

Since 1995, as a result of the drafting and approval of the ISO 14001 environmental management systems (EMS) specification, countries and organizations from every continent have been performing assessments and conducting pilots to prepare to conform to the specification. Their motivations vary. In some regions, the ISO 14001 standard is seen as putting up a potential barrier to trade. For others, the adherence to the EMS specification offers an opportunity to develop an effective EMS that can demonstrate a reasonable standard of environmental care. For governments, and not only those in developing countries, the ISO 14001 standard offers an alternative approach to the command-and-control regulatory model increasingly seen by critics as expensive, awkward, and outmoded.

At the same time, certain groups are skeptical about the benefits of the ISO 14000 standards. Companies wonder if adhering to these voluntary standards will bring them regulatory relief and credit from various stakeholder groups. Depending on the government agency, this issue is far from decided. The recent and continuing debate in the United States over auditing privileges and disclosure highlights how, in the environmental field, good intentions can always lead to rancor.

Environmental organizations are, for the most part, reserving support for the standards. They want to see actual environmental performance improvements that are to accrue from the adoption of ISO standards. These groups are also concerned that ISO 14000 may roll back the environmental gains won over the past several decades through regulation and enforcement.

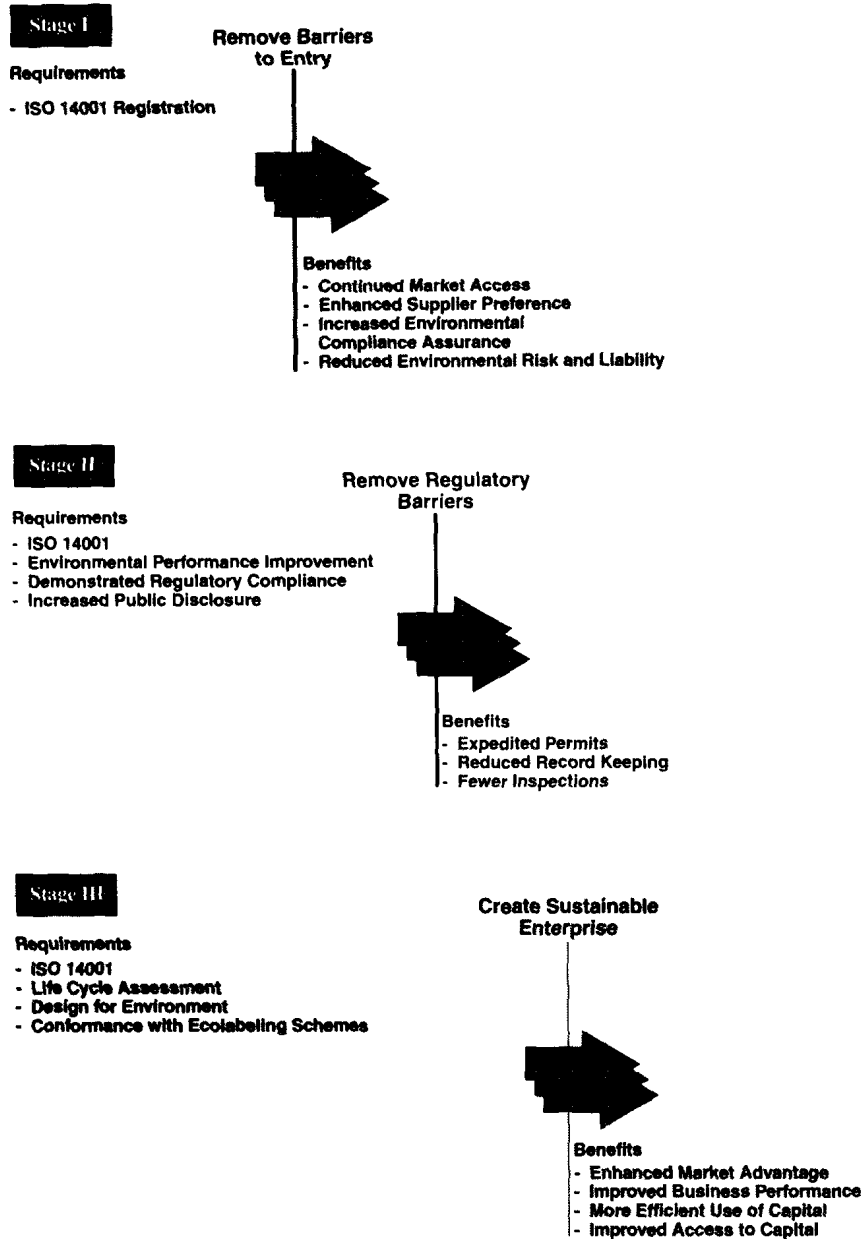
Many experts predict that the impact of these standards will surpass the extensive adoption of the ISO 9000 quality standards. More than 75,000 companies worldwide have achieved official ISO 9000 registration. The results of a recent A.D. Little survey shows that the interest in ISO 14000 will be equally high. Eighty-five percent of the respondents said it was critical for their environmental management systems to meet the standards, even if they did not seek actual certification. Some leading companies have already announced they are applying the standards to their business practices and benchmarking operations. In some regions of the world, tax incentives for ISO 14001-certified companies have already been proposed and are being discussed.

To help managers and companies meet these ISO 14000 challenges, 30 environmental authorities have joined together to put together this new book. In it, you will find expert guidance on a wide array of topics and pressing issues needed to successfully understand, initiate, and implement an ISO 14000 program.

The chapters have been prepared with a keen eye on how these potentially costly efforts will help companies improve their business performance through the enhanced eco-efficiency of their operations. Eco-efficiency refers to the concept developed by Stephen Schmidheiny and others of increasing value added at the enterprise level while decreasing pollution and resource use.<sup>1</sup> The collective consequence of widespread adoption of the concept of eco-efficiency may be to advance the ill-defined but imperative demand for global sustainable development. If the adoption of ISO 14000 worldwide can provide a platform for initiatives to define and incorporate eco-efficiency into business operations, then the international effort to develop the standards may well be justified.

In fact, we may be seeing the evolution of a new framework for the contribution of environmental management into organization's operations. The figures below present a three-stage model of ISO 14000 leading to eco-efficiency. In stage I, ISO 14001 registration provides for contractual and business relations

on a two-party basis. Registration, self-declaration, and the like assure the contracting party that their supplier is operating its environmental activities in conformance with the EMS standard. Similarly to ISO 9000, stage I represents a purely voluntary private relationship. The benefits include continued access to markets and retention of preferred supplier status, among others.



**Figure 1.1 Path to Eco-efficiency Through ISO 14000**



In stage II, ISO 14001 registration may be accompanied by other requirements, including demonstration and publication of improved environmental performance beyond that demanded by regulations. Organizations may gain a number of benefits from government in exchange for this greater level of environmental commitment, including fewer audits or inspections, less burdensome recordkeeping, and expedited permitting. This outline of the use of ISO 14000 in the regulatory relationship is not confined to the United States alone, but is being considered worldwide.

Stage III represents a significant transition to eco-efficiency. Here, the enterprise or organization uses the ISO 14000 standards not only to transform its relationship with clients and government, but also to transform its relationship with the environment itself. The enterprise adopts and integrates many of the ISO standards into its fundamental business processes of product design, operations, and distribution of products and services. The potential benefit to the company may be enhanced customer preference, new markets, and greater production efficiencies. The benefit to society may be decreased pollution and improved conservation of energy and natural resources.

ISO 14000 will involve many critical investment and implementation decisions. Integrating environmental factors into broader business management systems and decision making will be, for many companies, a long process of change and improvement. We have, therefore, developed this book from the perspective of managers needing support throughout their companies to maximize the benefits of moving ahead with ISO 14000. Our experts have provided timely insights, case studies, assessment checklists, and essential guidelines to help companies take advantage of ISO 14000 in improving their environmental performance and enhancing global trade opportunities.

*Section One: A New Global Challenge—Voluntary Management Standards* looks at why companies need to respond to the new standards from a global business perspective. A country-by-country guide to specific government and industry initiatives is a compelling call to action for firms beginning to analyze ISO's impact. Many company studies from the ongoing NSF implementation initiative of voluntary management standards provides valuable insights into the implementation obstacles and opportunities.

*Section Two: Gaining Support Throughout Your Company* examines how managers can "make the case" to top management and other critical groups affected by the standards. Integrating environmental factors and investment decisions into other functional areas will initiate a long change process for many corporations. These chapters show managers what to consider in their cost/benefit analyses and highlight other ISO opportunities to enhance competitive positions.

*Section Three: Registration and Implementation Strategies* details the how and why of implementing ISO 14000 and provides a first course on the registration

process. Leading experts offer valuable guidelines to help companies optimize all of their resources to make this initiative cost effective. Most companies spend more time doing over what they could have successfully planned. These chapters show what needs to be discussed before and after taking the critical ISO path.

*Section Four: Implementation and Integration Issues, Impacts, and Tools* gives vital information on how various groups will be affected by the new efforts and shows how companies can leverage their present resources and systems to make the most out of the ISO investment. It shows what needs to be done to link current policies and systems effectively. Given the cost of quality programs and other management initiatives such as reengineering, managers will want to know how ISO will impact their operations. These chapters offer companies many ways to implement and integrate without imploding.

*Section Five: Advancing Sustainable Development and Creating Competitive Advantage* presents many timely contributions from industry experts that show what needs to be done to continue the ISO momentum by using new tools for environmental and business decision making. How companies can rethink and enhance their accounting, design, and manufacturing practices to improve their environmental report card and contribute to the ISO 14000 goal increased sustainability is thoroughly covered. Life-cycle assessment tools bring together many key players within organizations and have been embraced by many global companies as a means to create greater competitive advantage. These chapters show managers what they need to know to continue moving ahead of their global competitors.

The editors would like to take this opportunity to thank all of the contributors who have generously given their time to prepare these chapters for their colleagues in the environmental and business community. Our numerous discussions have helped bring forward the most useful information firms will need to make the most of their ISO 14000 efforts and navigate to new shores. We would also like to thank the staff of professionals at John Wiley & Sons—in particular, Dan Sayre, Diana Cisek, and Donna Conte—for all of their enthusiasm, patience, and thoughtful guidance.

## Notes

1. Stephen Schmidheiny and Frederico J.L. Zorraquin, *Financing Change, The Financial Community, Eco-efficiency and Sustainable Development*, (Cambridge, MA: MIT Press, 1996).

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## **SECTION ONE**

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### **A New Global Challenge— Voluntary Management Standards**

*In this section, we look at why companies need to respond to the new standards from a global business perspective. With international trade ramifications, companies should now be assessing their strategies. Jim Rogers and Henry Balikov present compelling arguments for companies to take a proactive position. Pam Bridgen shows how governments and industries from around the world have responded and who has taken the lead. Lynn Johansson and Craig Diamond detail how companies have piloted the new guidelines and are proving there is much to gain from moving ahead.*





## **ISO 14000: The Worldwide Response from Industry and Governments**

**Pamela J. Bridgen**

The overall response around the world to the ISO 14000 series of standards for environmental management systems, eco-labeling and life-cycle analysis appears to be generally positive. There is, however, a range of reactions based on the degree of awareness of the ISO 14000 standards and the process for their development. Many developing countries have little or nothing in the way of environmental legislation and regulations. These countries, generally, are the least familiar with ISO 14000 and have had minimal involvement in the development of the standards, which may lead to concerns regarding their applicability. Recently, however, awareness of ISO 14000 has increased dramatically, and in the ISO 14000 meeting in Rio in June 1996, an ad hoc group on implementation in developing countries was being initiated.

There appears to be more movement toward the implementation of these standards in countries where industry perceives that the relative importance of the global marketplace is high compared to that of the domestic market. However, there is ubiquitous interest on the part of both governments and industry in moving from command-and-control environmental regulation, which is very inefficient and costly, to voluntary environmental management systems that can be more flexible and result in improved environmental protection.

In Europe, a complex situation has arisen due to a perceived conflict between ISO 14001 and the Eco-Management and Audit Scheme (EMAS), which is a European Union regulation that became effective in July 1993. Currently, the program is voluntary, but companies are concerned that it may become mandatory. Hundreds of companies in Europe are already certified under EMAS, and it is being implemented widely. The debate is fueled by the need to limit the number of different standards to a minimum—indeed, a single global standard is the ideal. Currently, the European Commission is considering whether ISO 14000 could be accepted as a part of EMAS. The expectation is that EMAS and ISO 14000 standards will ultimately merge, with the most useful aspects of each being incorporated into the surviving global standard.