

Viewpoint

The Message from Rio

J. Ladd Greeno, Gilbert S. Hedstrom, and William F. Wescott II

The historic Earth Summit in Rio de Janeiro – the United Nations Conference on Environment and Development – effectively demonstrated to the world the magnitude of the challenge we face. Those of us who represented industry and government in Rio, like the many delegates and environmentalists who participated, came away with a renewed sense of urgency. After two years of intensive preparation and two weeks of even more intensive negotiating, the real work remains to be done. Earth Summit agreements on climate change, biodiversity, and forest protection lack prescribed mechanisms for ensuring that words become actions. Furthermore, despite a broad consensus that industry/government partnership is essential for launching significant new initiatives, the actual roles of industry and government remain blurred.

Nonetheless, the meeting in Rio clearly set the direction for an important new beginning. It provided the foundation for a new set of *de facto* requirements for globally competitive firms and pointed to the urgent need for industry to take a much stronger leadership role. In the process, it sent a number of blunt messages to management:

1. Industry must step up to the plate

As the delegates in Rio reflected on 20 years of change since the 1972 United Nations Conference on the Human Environment in Stockholm, there was much frustration with the inability of governments to address the most pressing environmental problems. While the extensive legislation of the '70s, '80s, and '90s has achieved noticeable accomplishments around the world (often at high cost to industry), it has not fixed the major problems. A strong theme emerging from Rio is that because industry contributed to the problems and has the ability to find the solution, industry must evolve from a somewhat reluctant, regulated participant into a pace-setting change agent. Industry leaders have made extensive progress in recent years in developing technologies, management systems, and measurement tools to reduce the impact of their operations and products on the environment. Over the last decade, a number of companies have been considered environmental leaders, striving to go beyond regulatory compliance. For the most part, however, their focus has been directed inward to their plants and facilities, not outward to the broader environmental implications of their operations and processes. Many efforts have been aimed at incremental improvements. Little attention has been given to examining environmental implications throughout the product life cycle: the impact on the environment of the way a product is conceptualized, designed, developed, manufactured, and used.

One consequence of the Earth Summit will be regulation and voluntary initiatives that promote the development of sophisticated measurement systems. Such mechanisms will enable companies to understand better their products' environmental impacts, the inefficiencies of incremental improvements, and the need for thoroughly rethinking processes and products.

In working with companies to improve environmental performance over the past fifteen years, we have characterized the evolution of corporate environmental postures through three stages.¹ Companies in Stage 1 focus their efforts primarily on identifying and solving environmental „problems.“ Stage 2 companies manage their operations and systems for compliance, build systems and competence to achieve goals, and coordinate compliance efforts to address common issues. Stage 3 companies go beyond compliance by actively managing EHS risks and strategic opportunities.

Until now, there have been few real incentives for companies to go beyond compliance. In fact, only 10 to 15 percent of major corporations in North America and Europe exhibit Stage 3 characteristics (although recently more are proclaiming a desire to get there). Driven more by enlightened self-interest than by regulatory or public pressures, these far-sighted companies have established companywide environmental management systems and have made significant progress toward environmental stewardship.

However, despite progress made in recent years by these leaders, the consensus voiced by government and industry representatives at Rio reinforces public sentiment that these efforts are not good enough. Major problems remain unsolved. Extensive work is needed to clean up the mistakes of the past and to build infrastructure and management programs to prevent future mistakes. We can expect that companies will come under considerable pressure to move into next-generation environmental management. In the words of E. S. Woolard, chairman and chief executive officer of Du Pont, „Corporations that think they can drag their heels indefinitely on environmental problems should be advised: Society won't tolerate it.“

2. The ceiling becomes the floor.

In the industry conferences orchestrated alongside the Earth Summit, executives had an opportunity to „display their wares“ in front of a global audience. Notably these accomplishments, however impressive, represent only a

handful of leading companies that have put extensive commitment and investment into making environmental progress a reality. For the last decade, these companies have been considered the environmental leaders – representing the highest level of performance. After Rio, the excellence exhibited by this small group of companies today will become the expected standard for all companies.

If an executive looks around today and finds companies in any industry with stronger environmental programs, more aggressive environmental postures, more effective environmental reporting mechanisms, performance measurement tools that provide an honest picture of progress, systems that substantially reduce pollution well beyond the norm, and products with far less impact on the environment, that executive can expect stakeholders ultimately to demand these same efforts from his or her company. All the best company practices for managing the environment will, collectively become the basis of global standards.

A critical aspect of achieving ceiling-to-floor progress will be the role of environmental performance measurement. Enlightened companies are pioneering systems for measuring environmental progress against requirements and goals. It is important to distinguish between measuring actual environmental, health, and safety (EHS) performance and measuring progress in building environmental management systems. Although it is unlikely that high performance will be achieved without a well-planned and functioning management system, it is possible to have a sophisticated program in place and still not achieve the desired environmental performance. Measurement of program progress without measurement of actual performance will simply not satisfy an increasingly discerning public.

Environmental performance measurement is an embryonic discipline. Aspects of EHS activities that lend themselves to measuring and tracking progress include:

- Episodic events in the areas of personnel safety and property damage
- Compliance with regulations, internal standards, and good management practices
- Amounts of emissions, discharges, and waste released to the environment
- The impact of operations on health, safety, and the environment
- Use of renewable and nonrenewable natural resources
- Progress in implementing EHS programs
- The cost of EHS management

One critical issue for a company to consider in selecting the best approach for its needs is how well the system will stand the test of time. Will it support reliable progress measurement year after year in areas such as emissions reduction, waste minimization, and pollution prevention? In the United States, for example, the most common method of measuring waste generated is based on reporting requirements under SARA 313 for the Toxic Release Inventory (TRI). Through TRI, companies show quantities of waste released to air, water bodies, land, underground injection wells, publicly owned treatment works, and other off-site locations. TRI has raised company awareness of the amounts of chemicals released and has spurred considerable progress in pollution prevention.

However, TRI has some significant drawbacks. Because quantities released are not normalized for production growth or decline, it may be difficult to track year-to-year progress. Furthermore, the „quantities released“ are often based on crude estimates rather than on actual measurements. Some companies have begun to develop their own programs to go beyond TRI requirements. One successful program is Polaroid Corporation’s Environmental Accounting and Reporting System, a waste-release measurement system specifically designed to track and encourage pollution prevention. Polaroid not only normalizes its waste measures (e.g., per camera or per square foot of film manufactured), but also provides incentives for line management to ensure that new products or processes are designed with less environmental impact.

As the need to measure and improve environmental performance increases dramatically in the next few years, more companies will begin to determine which measurement systems best meet their needs, i.e., which are consistent with the environmental, health, and safety goals of the company flexible, rigorous, and capable of accurately measuring progress year after year.

3. Partnering means progress.

The Earth Summit demonstrated that the antagonisms of the past must give way to building new and meaningful partnerships. Industry must partner with both governments and nongovernmental organizations. Companies must partner with each other, both within industry groups and across industries. Managers must partner across organizations. Some of these relationships may have been considered risky in the past. For example, environmental groups partnering with businesses have feared losing credibility among constituents, or vice versa. But the environmental arena is quickly becoming much more accepting of partnerships as companies,

governments, and environmental groups begin to share common goals and benefits.

Preparations for the Earth Summit itself were built on many government-industry partnerships. For example, some leading companies helped shape Rio priorities on behalf of the International Chamber of Commerce – e.g., Allied-Signal chaired ICC's U.S. preparatory effort, while Shell chaired the ICC charter group. But even prior to Rio – in some cases, for many years – individual companies have been building strong partnering arrangements around the world in order to manage their businesses better while managing for the environment. Examples include:

- As long as 15 years ago, Merck & Co. partnered with a group of pharmaceutical companies that wanted to build facilities in Puerto Rico, but found that there was no infrastructure to deal with wastewater. The companies pooled resources, designed a wastewater treatment plant, paid for it, and then gave the facility to the Puerto Rican Sewer and Aqueduct Authority.
- Northern Telecom and AT&T led several electronics companies in the formation of a multi-industry group, the Industry Cooperative for Ozone Layer Protection (ICOLP), to promote international technology cooperation to find and replace chlorofluorocarbons with alternative substances in electronics manufacturing and related processes.
- In Kalundborg, Denmark, a series of partnerships among industry, government, and the local community have developed into a model of „industrial symbiosis“ that enables the partners – including Novo Nordisk, Statoil, the Asnaes power plant, and local farmers and cement makers – to trade industrial wastes and energy resources and to use recycled materials in new production.
- IBM Germany and Du Pont joined forces to develop a European Chemical Data System, the first multilingual, on-line chemical data bank in Europe, which includes all regulations regarding handling, transport, and storage of chemicals.
- Chevron is leading a petrochemical industry effort to share environmental technology with the Nigerian government.
- In what is now a well-known collaboration, McDonald's Corporation and the Environmental Defense Fund partnered to develop solutions to some of the problems facing the fast-food giant with respect to packaging and solid-waste reduction.
- The Brazilian Foundation for Sustainable Development, founded by Aracruz Celulose with 24 other Brazilian enterprises to help build sustainable development projects, contributes to several environmental conservation projects.
- In the early 1970s, a Fortune 200 forest products company boldly announced the first major corporate land conservation project by contributing 50,000 acres for conservation. Through tax benefits, the donation was financially beneficial to the company; it also elicited an overwhelmingly positive response from employees, shareholders, and community leaders.

Some partnerships – for example, some cooperative efforts in the recycling area – have fared less well. However, the number of win-win partnerships and their range of focus will increase rapidly spurred by the understanding achieved at the Earth Summit.

4. Stakeholders' concerns will drive strategy.

The organization's need to satisfy its many stakeholders' environmental concerns will become a key driving force for change in the ways corporations manage their businesses. At Arthur D. Little, we believe that the key to successful corporate performance is identifying all key stakeholders and their needs and then setting a strategy that explicitly balances those needs. Traditionally, companies have focused on their owners as their primary stakeholders. In recent years, through total quality management initiatives, the notion of stakeholders has broadened to include customers and employees. Increasingly, corporations need to be environmentally accountable not only to owners, customers, and employees, but also to local communities, boards of directors, and the public. One major environmental services company now includes „the environment“ as a key corporate stakeholder. Many companies in industries with potentially significant impact on the environment – industries such as petrochemicals, mining, pulp and paper, and electrical utilities – do not yet see the environment in that light.

Although considerable progress has been made by leading companies, stakeholder demands illustrate that this progress is not nearly enough. One indication is the jump in the number of environment-related shareholder resolutions presented for vote in major U.S. corporations. According to the Investor Responsibility Research Center, prior to 1990 there were only two or three such votes a year, generally triggered by major environmental incidents. In 1990, however, 15 environment-related resolutions came to vote; in 1991, 37; and in the first half of 1992, 32 – the bulk of them driven by the Valdez Principles. While none of these resolutions passed, they

received enough votes to be placed on ballots again the following year.

The Earth Summit lent a louder voice – if only for two weeks – to stakeholders around the world who want environmental change. It is likely that in the next few years many companies will find their primary motivation for change in the demands of stakeholders – including demands for pollution prevention, for environmentally-benign packaging, for community safety, and for recyclable products. Many companies may also find that response to these demands can lead to more efficient operations.

5. The buck stops with top management.

In the last few years, we have seen the management of environmental affairs move steadily up the corporate ladder. In 1991 almost half (49 percent) of the *Fortune* 100 companies had vice presidents in charge of environmental affairs, up from 38% only a year earlier. For the *Fortune* 50 companies, the percentage is even greater – 62 percent in 1991. What is particularly interesting is that the industries with the greatest increase were not the chemical or oil industries (more than 70 percent of which already had environmental vice presidents in 1990), but rather industries that had been traditionally perceived as presenting lower environmental risk – industries such as forest products, consumer products, and electronics.

Moreover, in choosing leaders for environmental management, some companies, such as Dow Chemical, are drawing on line managers from their successful operating companies. Some leading EHS heads are now sitting on corporate operating committees – Monsanto and INCO are notable examples. Senior management is making certain that the environmental „issue“ has sufficient clout and depth to command the attention of the entire company. The messages from Rio will put pressures on more companies to do the same. Industry leaders such as Robert Kennedy, chairman and chief executive officer of Union Carbide Corporation, and Frank Popoff, chairman and chief executive officer of Dow Chemical, made it a priority to participate in the discussions in Rio. In fact, Rio showed that the environment is an appropriate priority for heads of state as well as captains of industry.

Where will it go from here? Many of the necessary changes are already beginning to take place. The legacy of the Earth Summit is to hasten this process toward a new accountability for industrial development and the environment. Although the needs of various corporate stakeholders may seem at odds with each other, in reality they all share a common priority: enhanced performance. Enhanced environmental performance is now an essential component of enhanced competitive performance. Companies that pay too little attention to their environmental responsibilities will be at a competitive disadvantage in the coming years. Companies that actively consider the environmental implications of all parts of their organizations, processes, and products as they set their strategies for the future will be tomorrow's „high performers.“

¹ This topic was addressed in more detail in *Prism*, third quarter 1991, page 13.

J. Ladd Greeno is vice president of Arthur D. Little, Inc., and managing director of the company's worldwide Environmental, Health, and Safety Consulting Practice. An internationally recognized authority on environmental management and auditing, Mr. Greeno is frequently called on to advise corporate management and boards of directors regarding ways to increase the level of assurance provided by their environmental, health, and safety programs.

Gilbert S. Hedstrom, vice president of Arthur D. Little, Inc., and a managing director in the firm's Environmental, Health, and Safety Consulting Practice, is responsible for the company's work in environmental, health, and safety auditing; environmental and risk management; and environmental business and strategy. He has worked extensively in helping companies in all areas of environmental auditing and management, and led Arthur D. Little's representation at the Earth Summit.

William F. Wescott II is a senior consultant in the Environmental Risk Management Unit of the Environmental Management Section at Arthur D. Little, where he has been primarily involved with the identification and management of industrial environmental impacts throughout the world. He was an official delegate to the Earth Summit, participating as part of the Romanian delegation.