

ENVIRONMENTAL LEADERSHIP

Entering the Fourth Environmental Wave

Environmental change comes in waves, as professionals in the field know well. Most are familiar with the eras that have come before: Since the early 1960s, the focus has changed from conservation to regulation to sustainable development.

But most have not yet recognized the next focus of concern that is certain to impact the environmental world over the next few years: the struggle for control over the world's remaining, easily exploited natural resources. This high-stakes struggle involves environmental issues at its very core, and it is already beginning to exert major impacts on governments, corporations, and financial markets.

This column examines the emerging "fourth wave" of environmental change—and looks at how it will affect your organization and your career.

Staying Ahead in a Rapidly Shifting Environment

It is becoming more and more difficult for businesses to be forward-thinking because the rate of change is accelerating at a previously unimaginable pace. The Internet, modern technology, and the global marketplace all share credit for this—or blame, depending on your attitude toward change.

An examination of the emerging environmental dynamics facing organizations

Generation Y's shout "That's so yesterday" seems like an apt maxim for a world where 401(k)s can become 104(k)s at the ring of the stock market's closing bell.

Wall Street cannot seem to estimate stock performance for even the next quarter.

But while immediate financial returns seem to defy predictability, some larger trends are quite foreseeable. In retrospect, the 2008 meltdown in subprime lending, financial institutions, and eventually entire economies was absolutely predictable. So why was it so difficult for most business executives to properly position their companies for this inevitable crash?

In retrospect, it is clear that "groupthink" was a major factor. Those economists (such as Nouriel Roubini) who anticipated the inevitable were subjected to ridicule. Roubini saw the future clearly and not through the distorted lens of what others wished it to be. By contrast, far too many top-level executives and politicians wanted to believe the rosy forecasts, and some even doubled down on the bets they were making on behalf of shareholders or taxpayers.

Richard MacLean



Moreover, for many at the top echelons of business and government, it was a game of “Heads, I win. Tails, others lose.” The worst-case scenario for them was a multimillion-dollar exit package or a government pension as long as they stayed within the legal loopholes.

The psychology of how these mental dynamics work has been thoroughly researched, and there is no need to explore it further here. Those interested in these factors and their relationship to environmental issues may want to read my earlier writings on the subject.¹

The Need for a Long-Term Vision

Companies depend on some level of predictability and stability, but massive change can also offer competitive advantages if emerging dynamics are recognized sufficiently far in advance. Good companies manage and deliver results over the short term. But in the words of business guru Jim Collins, great companies position their organizations over the long haul.

Clearly, future environmental issues involving competition for natural resources will impact community relations, technology, marketing strategies, and consumer preferences to a level never before comprehended. Environmental managers can add tremendous strategic value if they resist groupthink and help their organizations form a clear vision of the future.

The Challenge of Formulating a Strategic Vision

It is a real challenge to gather information and then formulate and deliver a strategic vision to top management. Few environmental managers have the time to do basic research or read extensively on emerging issues. Even fewer are given the time and opportunity to communicate directly with those who are at the cutting edge (some say “bleeding edge”) of incipient developments. Environmental managers generally operate on shoestring budgets that barely allow them to assure compliance, let alone support the development of strategic information.

Just What Is Real Business Value?

Throughout this column, terms such as “strategic,” “value,” and “competitive” appear. In this context, they refer to policies and approaches that could have a *material* impact on a company, as broadly defined by the Securities and Exchange Commission.

In other words, these policies and approaches really matter. They can impact the company’s stock price and, thereby, shareholder value. They become an integral part of the organization’s *business* strategic plan.

Competitive Value Versus Best Practices

“Competitive value” refers to practices that help companies gain advantage over competitors, potentially driving them out of business. Best practices, on the other hand, are usually about saving money, not about positioning for true strategic competitive gain. Saving a few million dollars is valuable, of course. But such dollar amounts are just round-off errors for many large organizations.

First adopters of best practices generally gain the most benefit from them. However, best practices generally are not trade secrets that offer tremendous competitive value. That is one of the reasons they are often shared and benchmarked.

Environmental Strategy and Business Value in the Fourth Wave

Historically, environmental and health issues have had very real and material impacts on some companies. In most instances, these impacts have been negative (think asbestos). But such issues can also have significant positive impacts for companies that creatively and successfully integrate environmental strategies into their operating vision (think Stonyfield Farm).

Remember that the stakes are going to be extremely high in the fourth environmental wave. This means that the likelihood of environmental strategies creating material impacts for companies (either positive or negative) is much greater than in previous environmental waves.

Trade Associations and Conferences: Useful, But Not Strategic

Relying on trade associations and professional societies is the most common method that environmental managers use to obtain what they believe to be the latest information. Unfortunately, however, such sources deliver information about a decade too late for it to be of really strategic value. Knowledge gained from these sources is useful, of course. But by definition, it can hardly be strategic when it is being shared among competitors.

Organizations that put on conferences and workshops often become big businesses by catering to the common denominator of greatest interest. They typically do not wish to alienate members by discussing what most would consider to be “off-the-wall” issues with no immediate relevance. Remember that global warming did not make the cut among the many issues discussed at profitable environmental regulatory conferences circa 1985.

Information gained at trade conferences often focuses on technical or societal trends, or on regulatory and legislative processes that emerge long after incipient indicators have passed. For organizations seeking to develop a long-range vision, however, it is this incipient and embryonic information that is of real strategic value. And in today’s fast-moving environment, “long after” can mean months, not years.

The problem is further exacerbated when conferences are sponsored by equipment suppliers or large consulting firms that prefer to sell to a predictable, status quo market. These types of forums can be terrific, of course, for participants who are networking and seeking best practices. But best practices are usually about saving money, not positioning for strategic competitive value. This distinction is critical.

To illustrate the problem, consider an e-mail I received on the day I began writing this column.

The message announced a conference on “corporate water management,” which it portrayed as the “next business challenge.”

The problem with this message is that it arrived years too late for strategic planners. Nearly a decade ago, I analyzed the key environmental issues that were likely to affect a client in the future. Water was top on the list, based on input from six research and nongovernmental organizations (NGOs). In fact, the conclusion I reached in that analysis could have been obtained even earlier, and would have had even more strategic value if the work had been initiated years sooner.

Today, of course, the water issue is so well known that it is covered in the popular press. But the strategic players were already making their moves a decade ago. GE, for example, entered this market niche back in 2001, forming Water & Process Technologies after buying several existing water-related businesses.

Addressing water issues now is valuable and necessary, but hardly strategic. Water management no longer offers environmental professionals substantial scope for competitive positioning.

As such, it is emblematic of the problems that face environmental and sustainability managers. Too often, these professionals find themselves operating on the margins, where issues have become so obvious to everyone that their own management is pressuring them for answers.

Gaining Insight

How does an organization explore future possibilities if they have little time and no budget to hire someone to do the requisite legwork?

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Again, going to the usual venues can yield good networking information, but little real strategic information. Other than meetings where I am invited to speak, I have largely given up attending trade association and professional society conferences.

However, one forum that has proven insightful is the annual CERES conference. The April 2009 conference in San Francisco was no disappointment.

CERES (known in its early days as the Coalition for Environmentally Responsible Economies) was formed in the wake of the 1989 Exxon Valdez oil spill. CERES encourages organizations

to endorse its code of practice, originally known as the Valdez Principles.

Once considered radical by industry, CERES nearly went dormant in the early 1990s. It was not until 1993 that a Fortune

500 company, Sunoco, finally signed on to its principles. CERES eventually began to grow under the leadership of then executive director Robert Massie, who launched projects such as the Global Reporting Initiative (GRI).

Today CERES is viewed as mainstream. Like other major environmental NGOs, the organization has a sizable staff. It sponsors projects, awards, events, and publications. Its operations are maintained with the help of corporate sponsors, membership and conference fees, and individual donations. CERES has become successful enough that it can attract world-renowned environmental icons to speak at its events.

For a conference attendee, the downside of this success is that some (possibly too much) of the annual conference is spent on self-congratulatory praise and ceremonial recognition of spon-

sors and members. In eco-jargon, some would say that the event seems to be making the transition from deep green to light green.

Nevertheless, some of the conference sessions and presenters still provide valuable insights into what the future may hold. In part, this reflects CERES' focus on several issues that have emerged as crucial in light of today's financial meltdown—issues such as transparency, governance, and shareholder value. The organization's original stated mission of "integrating sustainability into capital markets" signaled a prophetic recognition that the real levers for protecting the environment must center on money.

Connecting the Dots to Form a Vision

A picture is a collection of dots or pixels that form a recognizable image when viewed at a distance. The problem with forming an image of the environmental future is that we are constantly inundated with an array of individual dots of information but cannot achieve sufficient distance to see the pattern they form. It is a classic case of "not being able to see the forest for the trees."

Resources and Rivalry

One key area where the "dots" have been gathering in recent years relates to the control, exploitation, and use of natural resources. Once you become aware of the issue, you can see signs of resource competition all around the world.

For example, a number of companies are attempting to take control of resources in South America, Australia, Africa, and even parts of Europe, such as Romania. Organizations are seeking to tie up tracts of forested land in South America and Indonesia for carbon offsets. Palm oil, once seen as a green alternative, is being denounced as environmentally destructive now that large swaths of forests in Indonesia are being cleared to produce it. The massive clearing of Brazilian rain forests for farmland has been going on for decades.

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According to the 1998 “Living Planet Report” by the World Wildlife Fund, Earth lost one-third of its available natural resources between 1970 and 1995. Even if you discount this estimate by an order of magnitude, the implications are stunning.

Not surprisingly, resource loss on this scale has given rise to strong pushback—not just by NGOs, but also by communities and nations that are being affected. Pushback can take many forms and can be especially risky for business people in countries ruled by autocrats. Mikhail Khodorkovsky, once head of Yukos petroleum, was thrown in jail during Vladimir Putin’s renationalization of Russia’s oil industry after years of privatization.

Russia is now using its natural gas supplies as a political tool against Ukraine and as a lever to influence decision making elsewhere in Europe, where many countries are heavily dependent on Russian energy. Michael T. Klare’s 2001 book, *Resource Wars*, seems more and more insightful with each passing year.

At the 2009 CERES conference, an entire session was devoted to carbon markets, emphasizing the efforts organizations have made to preserve tracts of forested land in South America and Indonesia for purposes of preservation and carbon offsets. Other sessions covered resource-related issues such as water, food supplies, and sustainable supply chains.

Strategic Focus, Grim Realities

Most environmental conferences tend to be tactical and focused on problem solving, but the CERES event was much more strategic and forward-looking. In part, this reflected the interests of the attendees. Among the 500-plus conference participants were many financial analysts, investment managers, and representatives from foundations, NGOs, and the insurance and banking industries.

One of the most insightful speakers was Lester Brown, founder and president of the Earth Policy Institute. After more than a full day of enthusiastic speakers with optimistic outlooks on saving the planet, Brown brought harsh reality to the podium. He offered an encyclopedia of planetary statistics, and the numbers revealed a very bleak outlook.

The conversation soon turned to food shortages, failing crops, and failing states: India has constructed a wall to isolate itself from Bangladesh. There will be a precipitous decrease in Saudi Arabia’s wheat crops as a result of aquifer depletion. Other countries faced with food shortages are buying or renting land for crops.² Libya is swapping oil for surplus wheat grown in Ukraine. China is on a major spending binge, attempting to buy up lands rich in mineral resources.

I have read several of Lester Brown’s books, including his most recent, entitled *Plan B 3.0: Mobilizing to Save Civilization*. But hearing him in person helped me form an even clearer picture of what is going on in terms of global resources.

Other books and research reports, including The Worldwatch Institute’s *State of the World 2009: Into a Warming World* and the 2005 *Millennium Ecosystem Assessment*, paint a similarly grim picture of resources and ecosystems being diminished at a breathtaking rate.

Successive Environmental Waves

Van Jones, founder of the Ella Baker Center for Human Rights, was quoted in the seminal 2004 essay “The Death of Environmentalism” as saying, “The first wave of environmentalism was framed around conservation and the second around regulation. We believe the third wave will be framed around investment.”³ In this context,

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“investment” was related to public education, coalition building, and the development of new technologies for clean energy, transportation, and efficiency—all core concepts of sustainable development.

I agree with him about the first two environmental waves and their underlying drivers (conservation and regulation, respectively). But I would characterize the third wave as being driven by concepts related to sustainable development as wishful thinking.

For example, there is no clear understanding of what sustainable development really means and requires. As a result, the expression has been

co-opted into what might be described as a marketing effort to reduce the rate of unsustainability through the purchase of green consumer products.

That point was driven home to me in my travels on domestic

airline flights within China last year. The in-flight video screens were filled with slick marketing messages that would rival any Madison Avenue ad campaign, all touting high-end consumer products. With one of the most populous nations on Earth pumping out the message “consume,” the planet is headed for an unprecedented increase in resource use. Public education, indeed.

Against this backdrop, even the greenest products can do little to further the goal of sustainability. Reduce the rate of unsustainability, possibly, but hardly much else. In short, it is all about consumption—which in turn means it is all about resources.

Fourth Wave: The Rush for Resources

As Van Jones predicted, there will be a new cycle of investment in the future. But I do not

believe it will center on education, alliances, and cleaner technology, as some anticipate. Instead, investment will form the basis of the emerging fourth environmental wave—the movement to secure resources.

This trend reflects and extends the principles described by Garrett Hardin in his classic essay “The Tragedy of the Commons.” The self-interest driving nations, companies, and individual investors is shaping a future that will ultimately consume and destroy finite resources through overexploitation. “I’ll get my share before it is gone” might be the operative expression. The rush is on.

A Progression of Environmental Concerns

Exhibit 1 describes the progression of recent movements that have affected business environmental programs and environmental professionals, including the fourth wave I see emerging. The first wave (conservation) is not included in the description because it had minimal impact on business.

It should be clear that the individual waves do not start and end at well-defined points. Instead, each new wave builds on top of the previous movement, shifting attention and resources to the next generation of issues.

Playing for High Stakes

During the fourth wave, certain countervailing factors—such as more efficient technologies, the adoption of international agreements, and pushback from stakeholders—will no doubt help slow the rate at which resources are depleted. Optimists (including many people who were present at the recent CERES conference) believe that sustainable development can keep resource depletion in check and maintain balance. I am not convinced.

In some instances, the outcome of resource competition may ultimately be decided by armed

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Exhibit 1. Environmental Waves: Dynamics in Play

Dimension Name	Second Wave	Third Wave	Fourth Wave
Major themes	Regulations Regulatory compliance and cost containment	Sustainable Development Social responsibility, image management, and green markets	Resources Strategic resource positioning
Operative business questions	Are we in compliance? How do we cut environmental, health, and safety (EHS) costs?	Are we doing the right thing? How do we gain competitive advantage?	How do we ensure a reliable supply chain? What alternative resources and technologies can be utilized?
Power drivers	Regulations	Market mechanisms	Innovation and control over scarce resources
Power brokers	Exclusive: Regulatory agencies	Shared: Government, NGOs, and local communities	Exclusive: Governments, corporations, and landowners
Primary impact	Inside the fence; community	Supply chain; global markets	Supply chain; global markets
Positioning	Legal challenges; lobbying; public relations	Transparency; governance; partnerships; alliances	Advanced technologies; material substitution; options contracts
Source of advantage	Cost (e.g., waste reduction); agency-expedited regulatory permits	Preferred provider; product branding; certifications; market-entry barriers; community support; proprietary products	Lowest-cost provider; exclusive or most reliable provider of key raw materials and technologies
Objective	Reacting to problems; short-term issues	Identifying solutions; preventing long-term problems	Securing lowest-cost raw materials
Organization	Stand-alone; isolated departments containing EHS specialists	Functional integration; enterprise coordination	Strategic enterprise integration; partnerships with knowledge and resource providers
Governance	Ad hoc; voluntary; trust but rarely verify	Independent audits; certifications; sustainable development evaluations; trust but verify	Uniform metrics across industry sector; certified verification; political stability

conflict, either within or between nations. As Carl von Clausewitz noted almost two centuries ago, warfare is “politics by other means.” In many respects, the future may mirror the past, with nations attempting to increase their own power and wealth at the expense of weaker neighbors. The difference is that the stakes are even higher this time around.

Why This Matters for Your Business

The bottom line for your company is this: How and where resources are extracted and used will become enormously important issues that affect all businesses in coming years. The precise way these issues will impact your company (and they will impact it) depends on a range of factors that may vary according to the nature of your business.

—And What You Can Do About It

Since these fourth-wave issues are only now emerging, my recommendation is to examine

your supply chain and conduct a scenario analysis of possible future states. Once you have developed an understanding of the key issues, it is crucial to inform business management about your findings. Scenario planning is a good tool to utilize for this purpose.⁴

In most companies, business managers may assume that current prices for materials and components accurately reflect the availability and accessibility of these items for the foreseeable future. This is an obvious sign of groupthink in action. Given the factors discussed in this column, it should be clear that key resources could rise in price and become difficult to obtain in the future, perhaps with little advance warning.

Obviously, companies at the start of the resource supply chain will tend to be impacted the most and the soonest, either positively or negatively, by these developments. Many are already engaged in the process of “grabbing” se-

cure sources. I know a number of environmental managers who are consumed by all the activities needed to secure permits, especially gaining the trust of local communities.

It would be a major mistake for companies further down the supply chain to ignore these new resource dynamics. Instead, they should be responding to the signals that are emerging. For example, R&D departments need to plan for a far more complex resource mix than in years past. Innovations that allow them to improve their product line while avoiding dependence on scarce resources could mean salvation (or enormous profits) for their companies. These are exciting times.

Developing expertise in fourth-wave issues can allow you to play a major role in moving your company out ahead of the competition. It can also improve your career prospects and enhance job security.

A senior sustainable development consultant attending the CERES conference put it succinctly,

“Traditional environmental jobs are fungible.”

His statement was rather jarring. But it highlights the need for environmental professionals to focus on strategic issues if they want to remain relevant—especially as we enter the fourth wave.

Notes

1. See MacLean, R. (2008, January). Ignoring impending disasters—Why do the warning signs go unheeded? *EM*, pp. 30–31.
2. See, e.g., Buying farmland abroad: Outsourcing's third wave. (2009, May 21). *The Economist*. Available online at http://www.economist.com/world/international/display-story.cfm?story_id=13692889
3. Shellenberger, M., & Nordhaus, T. (2004, September). The death of environmentalism. Page 28. Available online at http://www.thebreakthrough.org/images/Death_of_Environmentalism.pdf.
4. See my articles on scenario and strategic planning, such as MacLean, R. (2008, Winter). Environmental leadership: Telling stories—The power of scenario planning in executive communication. *Environmental Quality Management*, 18(2), 95–100. See also MacLean, R. (2004, June 1). Preparing for an uncertain future—Environmental strategic planning essentials. *Environmental Protection*. Available online at <http://www.eponline.com/articles/53586/>.

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