Remember the "environmental movement"? And, before that, the "conservation movement" of the early twentieth century? These popular societal movements are still with us, of course, but momentum is rapidly building in support of the emerging global "sustainability movement," with more intense focus on public corporations. And a corollary movement is gaining strength in the U.S., especially at the community level, focused on "environmental justice," especially where corporations have operations or influence investment in poor or minority communities.

As popular grassroots and political movements have taken shape and become powerful influences in American society, their impacts have quickly been felt in corporate suites and investment banking offices.

Important and fundamental shifts in the way important elements of American society view the responsibilities of corporations are likely to accelerate in the months and years ahead, creating many new challenges in corporate accounting [for environmental liabilities] and financial disclosure and reporting. While the activist environmentalists continue to focus on corporate behavior—albeit without the scary headlines of the 1970s, 1980s, and 1990s—new voices are being heard, more often from the institutional shareowner community, and new agendas are emerging. An important change for corporate management is the emphasis of mainstream activists and investors on collaboration and cooperation vs. the confrontation of the past. In this scenario, activists, government, financial services organizations, and public corporations work together to solve problems and ensure a sound economy, healthy communities, and stronger, more resilient corporations.

Other changes include the focus on long-term solutions to corporate environmental challenges, more disclosure of corporate liabilities or vulnerabilities, adjustments in the way companies account for environmental liabilities, shifts in strategic thinking that focus corporate attention on opportunities in meeting environmental challenges, and the emerging opinion that corporations have a long-term responsibility for "product stewardship" that is implicit in the legal and marketplace franchises granted to corporations.

The emerging sustainability movement
The early twentieth-century land and natural resources conservation movement, embodied by the dramatic public pronouncements of President Teddy Roosevelt from his "Bully Pulpit," gave way in the mid-twentieth century to the emerging "environmental movement." Today, environmentalism is changing course and transitioning to the "sustainability movement." Environmentalism also now encompasses the "environmental justice" movement, which, as Harry Van Buren of the Interfaith Center on Corporate Responsibility (ICCR) explains, has at its core a simple ethical proposition: "A person's access to clear air, water or soil should not be dependent on his or her race, sex or social class." Too often, ICCR investor groups believe,
a disproportionate number of poor people or people of color were made sick because corporations or government placed harmful facilities in their communities "seeking the path of least resistance." (He asks us to imagine what would happen if a hazardous waste processing plant were proposed for an affluent community.)

These popular, grassroots movements were and are driven by the power of public opinion and the resulting political response to grassroots pressure or, at times, by dramatic events. (In the 1960s, the nation's rivers and lakes were often polluted and posed dangers to human health. The Clean Water Act addressed these conditions.) The ultimate power of the U.S. government made conservation and environmental movements all-encompassing, directly affecting corporate operations, financial markets, capital formation, public policymaking, media coverage, and even the nation's global trade policies. The NAFTA Treaty, for example, dealt with environmental impacts on the North American continent.

The new sustainability movement is similarly affecting all spheres of American life and corporate affairs, and is more global than the predecessor movements. The sustainability movement is primarily taking shape in the U.S., the European Union, and select regions of Asia, such as Singapore.

"Conservation" as early motivating force

The popular grassroots "conservation movement" began a century ago, in the administration of President Theodore Roosevelt—"TR." The famed "Rough Rider," a sometime western rancher, took pride in being an outdoorsman, conservationist and protector of flora and fauna in the fast-disappearing frontiers of the American West. (This was before Arizona was admitted as the last continental state.) By executive decree, he began to assemble large tracts of land as parks and preserves. The National Park Service Act came in 1916, thanks in great measure to TR's earlier campaigning.

Conservationists prevailed as a dominant force until the 1950s, when the huge industrial complex stretching across the 3,000 miles of the United States—America, Inc., the world's greatest industrial economy—emerged during and after World War Two, and the operations of large corporations began to have dramatic and sometimes very negative impacts on the natural and human resources of the nation. "Industrial pollution" became a common term for journalists. And public opinion was shaped by writers, authors, activists and public officials seeking to reign in what they saw as rampant industrial pol-
olution and the runaway behavior of large companies.

**Manifestos for public action**

Over several decades, a series of manifestos, published primarily as books, helped to create, shape, and motivate grassroots movements; this activism in turn generated popular support for political action as federal lawmakers and regulatory agencies adopted ever-more stringent regulations, instigated headlines in mass media, created demand for greater corporate disclosure, and brought significant changes in the way corporations operated, accounted for certain elements of their operations, disclosed material information, and reported to their shareowners.

Much of this occurred after World War Two. Essayist and conservationist Aldo Leopold published *A Sand County Almanac* in 1948. He was a founder of the Wilderness Society, advised the then-new United Nations (UN), worked as a forester and consultant to state governments, and helped manage the U.S. Forest Service operations. His essays centered on the changes he witnessed in the open lands and natural resources that he managed, and advanced the new theory that the basic fallacy in conservation efforts was that these had to be justified on economic grounds; he saw conservation as an extension of ethics from people to the land. Science could help us to reap an "esthetic harvest" as well as economic gains from nature.

His contemporary, Fairfield Osborn, published *Our Plundered Planet* in the same year. Mr. Osborn, president of the influential New York Zoological Society, argued that "a new ethical attitude is required, in which the proper conservation of natural and human resources of every country is [to be] regarded as a moral duty."

In the early 1960s, outdoor editor and author Rachel Carson penned several books, but the most influential was *Silent Spring*, which she titled after noting that because the new wonder chemical DDT was used so widely, birds' eggs became brittle, and their population dwindled... they were not there to sing in the springtime. More than any other writing of the era, Ms. Carson's words helped to marshal public opinion and drive public policy at the national, state and grassroots level. "The 'control of nature' is a phrase conceived in arrogance," she wrote, "born of the Neanderthal Age of biology and philosophy... the concepts and practices of applied entomology date from that Stone Age of science. It is our alarming misfortune that so primitive a science has armed itself with the most modern and terrible of weapons, and that in turning them against the insects it has also turned them against Earth." With these words, war was declared on the nation's chemical industry, and the public opinion, legal, and regulatory battles raged on in the coming decades.

**The public policy response**

President Richard Nixon was the catalyst for national action in 1970, when two years into his first term he signed into law the National Environmental Policy Act, which among many measures created the U.S. Environmental Protection Agency (EPA), combining research, enforcement and management programs in one agency. In the months that followed, all of the states adopted their counterpart statutes and created similar regulatory agencies.

The public opinion juggernaut spurred Congress to adopt many other measures to protect the environment, preserve natural resources, and protect human health. These included the Clean Water Act (1972), Federal Environmental Pesticide Control Act (1972), Wilderness Act (1974), and "Superfund" Act (1980). Each had a direct impact on the operations and finances of public corporations.

**Corporate impact**

Large corporations often found themselves in uncharted waters. For example, Union Carbide in 1971 had its plan to reduce sulfur oxide emissions from a Marietta, Ohio, plant ejected by the new EPA; subsequent negotiations saved jobs and produced a workable reduction plan (by 1972, emissions were down 70 percent), but clearly now, government was becoming a partner with corporations in addressing environmental issues.

New federal standards quickly emerged—standards for lead, safe drinking water, coal-
fired plants, transport pollution, toxic substances, waste, recycling, radiation, Great Lakes water quality, hazardous waste disposal, clean-up of polluted lands, asbestos abatement, lead in gasoline, gene-altered bacteria as well as many other industrial processes and products. Each had effects on the top and bottom lines of corporations. Some products were banned—for example, chlordane and PCBs—and new programs were added, such as those aimed at protecting children’s health.

Public opinion continued to be shaped by the powerful pens of authors—and often, opinion turned against the corporation as “pollution villains.”

Looking to the long term
James Lovelock, a scientist and academic, published Gaia: A New Look at Life on Earth in 1979, explaining that he “began the book at a time when we were still innocent about the environment, and the main concern was destruction of humans by nuclear war. Global change, biodiversity, the ozone layer, and acid rain were all ideas barely visible in science itself, and less of a public concern.”

Former Vice President Al Gore penned Earth in the Balance while still in office as U.S. Senator (summer 1992) and as he campaigned for the presidency with Arkansas Governor Bill Clinton. Often derided as “Ozone Man,” Senator Gore argued that “the engines of human civilization have brought us to the brink of catastrophe . . . the quality of our air, water and soil is at grave risk.” Earth, he wrote, must be brought “back into balance.”

An important shift toward economic realities
Other voices were raised that were less emotional and more pragmatic—recognizing the power of corporations to address conservation and environmental issues, and proposing ways that corporate power could be harnessed to attain a cleaner and safer environment.

A decade ago, Shabecoff argued for the need for changes in how "we operate financial markets and in the role of corporations—especially since current financial practices discounted long-term investments, and the highest financial returns came from developing and exploiting resources as quickly as possible.”

This “tyranny of the immediate” created a challenge for corporate managers who wanted to "do the right thing" but who were constrained by bottom-line considerations. Voluntarism would not accomplish the changes necessary. Shabecoff thought that environmentalism as a movement showed great resiliency and staying power, one that could outlast other movements such as civil, women’s, and labor rights. But a transition away from the movement had already begun.
Author Easterbrook examined toxic waste, water pollution, radiation, population growth, and other issues of the day to present a counterbalance to the often emotional arguments of other authors.

It had gotten to the point, he argued in his book, that "good news was scaring people!" (He cited a U.S. Senator angry at a story he had published in *Newsweek* that presented the details of the argument that industry was cleaning the nation's air; this outraged the legislator.) Said Mr. Easterbrook: "Something important is going on here: a fundamental, far-reaching shift toward the positive in environmental events. And while environmentalists deserved credit for improving things, it was time to begin reading a new script, one that reconciles the ideals of environmentalism with the observed facts of the natural world." Indeed, something important was going on in corporate America's relationship with government, activists, and journalists.

**New thesis for corporations**

This powerful shift continued with a book in 1993 by entrepreneur and successful business leader Paul Hawken (co-founder of the Smith & Hawken garden goods retail chain). His work, *The Ecology of Commerce: A Declaration of Sustainability*, got investment bankers and corporate executives (as well as environmental activists) thinking about making a true paradigm shift from confrontation (over pollution, contamination, emissions, and other negative outcomes attendant to industrialization) to an enlightened corporate community characterized by its focus on long-term economic gains from reducing pollution, true environmental stewardship, and generating [financial] marketplace rewards for socially responsible behavior.

His thesis, which continues to prove popular among lenders and business leaders a decade later: "Corporations, because they are the dominant institution on the planet, must squarely address the social and environmental problems that afflict humankind." This was not seen as a "management problem," but as a "design problem," and changing the design can help strengthen corporations. He set out challenging objectives for corporations of all sizes:

- Reduce absolute consumption of energy and natural resources in the north by 80 percent in the next 50 years.
- Provide secure, stable, meaningful employment for people everywhere.
- Be self-actuating as opposed to regulated or morally mandated.
- Honor market principles.
- Be more rewarding than our present way of life.
- Exceed sustainability by restoring degraded habitats and ecosystems to their fullest biological capacity.
- Rely on current income (everything that springs from Earth and returns to it must be redesigned around sustainable human communities).
- Be fun and engaging and strive for aesthetic outcomes.

For management, his advice was: "Our human destiny is inextricably linked to the actions of all other living things. Respecting this principle is the fundamental challenge [of] changing the nature of business."

**Focus on sustainability—at last!**

And so we come to 2005—and the transition is almost complete now to the focus on the new movement: sustainability. Several important books have shaped the new operating environment for large companies, including *Cannibals with Forks* by John Elkington, founder of the consultancy SustainAbility (London) and contributor to *Harvard Business Review, Management Today*, and other management audience publications.

His breakthrough concept is that of the "triple bottom line" of twenty-first-century business, focused on:

- Economic prosperity (companies must be financially sound, of course);
- Environmental quality (companies must assure quality in their opera-
tions, products, and all aspects of corporate life); and
• Social justice (community needs must be recognized and addressed, and fair treatment of all stakeholders is now more critical than ever).

Elkington notes an important shift: "Where yesterday's businesses were often oblivious to their negative impact on the environment, and today's responsible businesses strive for zero impact, tomorrow's businesses must learn to make a positive impact. Increasingly, companies will be selling solutions to the world's environmental problems."

Recent developments
As the shift from the "environmental movement" to a focus on long-term sustainability continues to build momentum, financial executives should watch the trajectories of recent events, and the actions of institutional shareowners, corporations, activists and government officials create opportunities—and challenges—for the financial managers of large enterprises, as well as for leaders in the capital markets who direct capital toward various enterprises and balance risk with reward.

The concept of enterprise risk management (ERM) has become an important discipline or set of disciplines within many large corporations. The state of the art is being advanced by the Committee of Sponsoring Organizations of the Treadway Commission, known as COSO, which published Enterprise Risk Management—Integrated Framework in September 2004.

COSO is a voluntary, private sector organization working to improve the quality of financial reporting through "business ethics, effective internal controls and corporate governance."

The September 11, 2001, terrorist attacks raised concerns in private and public sectors about the safety of U.S. power plants, water treatment facilities, and industrial operations of all types. Corporate management is paying more attention to the impact of their operations on employees, communities and the public.

The insurance industry has for a decade or more struggled with long-term liabilities of corporations owning hazardous waste sites subject to claims running into the hundreds of millions and even billions of dollars. Travelers, Cigna, Aetna, ITT Hartford, and Chubb—all issued policies from the 1960s through the mid-1980s covering environmental claims that required reserves ranging up to $500 million (through 1994) to cover Superfund cleanups. Lessons were learned. Today, insurers are looking at corporate environmental risks very closely and insisting on comprehensive risk management by insured companies to reduce or eliminate risk for the carrier.

Banks and lenders are addressing contingent liabilities—and looking to shape public opinion—that are changing the way that they weigh risk when making loans. Citigroup, for example, announced new environmental initiatives in late 2004, saying, "Protecting natural systems while lifting two billion people out of poverty and advancing economic development are three great challenges. . . . these are central to sustainable development . . . and Citigroup now has a broad array of policies and programs focused on sustainable development."

Among these: identifying "high caution zones" where the requirements of the "Equator Principles" will guide project financing; no project can significantly downgrade or convert critical natural habitat or impact indigenous peoples. Citigroup bans funding new for illegal logging and screens all financing requests that could affect habitat or people.

In 2003, a group of U.S. senators and representatives conducted a symposium to examine the role of the Securities and Exchange Commission (SEC) in requiring corporate disclosure of material "social and environmental" information. The SEC requires "some" disclosure of material information related to environmental risks, but not enough, the lawmakers believed. SEC rules should change to "meet the needs of today's investors."

Recent social and environmental accounting reforms in such countries as Canada, the United Kingdom, and France could affect the financial reporting of companies trading in multiple markets (stock exchanges).

A group of institutional investors have formed an alliance with public interest
organizations — the Corporate Sunshine Working Group — to encourage greater enforcement and expansion of SEC corporate social and environmental disclosure rules.  

The Social Investment Forum (SIF), an influential trade group for the American socially responsible investing community, asked the SEC to address environmental reporting and create new rules to expand disclosure. SIF expanded its website to carry a range of news about companies, including reports from the companies on their progress in addressing social and environmental issues. (The SIF members account for literally billions of dollars of equity investment in public companies.)

The UN has joined the parade with the formation of the "Financial Initiative of the UN Environment Programme." In 2003, the SEC reviewed the filings of Fortune 500 companies and commented that environmental and product liability disclosures for some companies—in oil, gas, mining, manufacturing—didn't provide adequate disclosure on environmental issues; companies with "material continent liabilities" were urged to review their disclosures.

In 2003, the Rose Foundation for Communities and the Environment filed a rulemaking petition asking the SEC to adopt the standards of the American Society of Testing and Materials (ASTM) to estimate and disclose environmental costs and loss contingencies. ASTM Standard E 2137-0 could be a guide for calculating environmental liabilities; this standard would have companies aggregate all environmental costs, which then would certainly be material for some companies, and subject to disclosure (in the total).

In July 2004, the U.S. Government Accountability Office (GAO is an arm of Congress) published a report on "the state of corporate environmental disclosures" that pointed out SEC shortcomings in requiring more corporate disclosure of environmental liabilities (and agency enforcement of such disclosures).

Socially responsible investors reacted by calling on the agency and Congress to require companies to disclose more detailed estimates of all contingent liabilities for environmental issues. The Social Investment Forum pointed out that FAS 5 (Accounting for Contingencies) and FIN 14 (Reasonable Estimation of Loss) in their view fall short as standards. The Rose Foundation's Tim Little said FASB loopholes "allowed companies to hide the financial significance of environmental problems."  

The California Public Employees' Retirement System (CalPERS), seeing "global warming and other environmental trends as significant investment challenges and opportunities," conducted a workshop on environmental investment in December 2004. Experts Peter Schwartz, chair of the Global Business Network, and Stephen Schneider, a professor of biology at Stanford University, told the $170 billion pension fund's investment staff that global climate change is a reality and a catalyst for change that will have profound effects on business and global economies. (CalPERS is the largest public pension fund in the U.S., with 1.4 million beneficiaries.)

Said then-CalPERS President Sean Harrigan: "Global warming will have considerable impact on our investment portfolio because business will be forced to respond and adapt to this new reality. While there are risks and challenges, there are significant opportunities, as technologies, products and services are developed to meet the needs of a changing world. (Earlier in 2004 CalPERS allocated $700 million for environmental investment initiatives, including $500 million for public equities, to invest in firms that "produce environmentally beneficial technologies or employ business strategies that reduce damage to the environment.")

In February 2005, the CalPERS board approved a plan to "shine light on corporate environmental liabilities, improving transparency and timely disclosure of environmental impacts." These actions are underway now:

- CalPERS will sign on to the Global Carbon Disclosure Project to improve the transparencies of business risks associated with global climate change;
- CalPERS will work to improve data transparency in the auto industry by supporting shareowner proposals at Ford and GM;
CalPERS will explore opportunities to develop a model greenhouse gases reporting project to ensure timely, standardized disclosure in the utilities industry; and

CalPERS will recognize companies that demonstrate best practices in environmental data transparency.

"We expect environmental corporate stewardship to play a greater role in corporate governance over the next 10 years," said Priya Mathur, CalPERS vice chair of investment committee. "Data on corporate environmental impact will be one of the best sources for investors to measure related investment risk."

The faith-based shareowner activist community—coordinating activities through the Interfaith Center on Corporate Responsibility (ICCR) in New York City, whose 300 member organizations represent more than $100 billion of corporate holdings—is focused on environmental justice, global warming, and related issues as core activities. The ICCR Environmental Justice (EJ) Working Group [of institutional investors] says it seeks to:

- Collaborate with local EJ communities to help "exercise control over injurious corporate environmental behavior";
- Promote disclosure of local environmental impacts and corporate solutions to address these;
- Ensure ongoing corporate compliance at the facility-level with environmental and health laws and regulations; and
- Model authentic collaboration and dialogue with local EJ communities that corporations should engage in.

ICCR member organizations filed more than 200 shareowner resolutions in 2004 and the 2005 proxy year appears to be as active a period for the group. ICCR working groups examine issues within their focus—e.g., the impacts of global warming—and engage large companies in dialogue. If dialogue fails, the members begin the resolution process; often the measure to be voted on is focused on having the public corporation disclose the impact of global warming on its operations and finances, and specify the steps to be taken to mitigate such effects. (For example, what will Midwest utility American Electric Power do with coal burning plants?)

The pressure on public companies for such self-examination and public disclosure is now coming from a variety of sources—ICCR is in the vanguard, as are large public employee pension funds (such as CalPERS and New York State Common Retirement Fund). Often, state governments are joining the parade. In summer 2004, American Electric Power (AEP) filed its quarterly report with the SEC, noting among "significant factors" that it was a party in a lawsuit brought against eight states and five public companies by New York Attorney General Eliot Spitzer, who is campaigning (and suing) to get utilities in the Midwest to cut back on emissions of carbon dioxide. AEP told The Economist that it strives for "full and fair disclosure of environmental factors," and its 10-K lists past, current, and future pollution abatement costs, including $1.2 billion capital costs over two years to comply with sulfur dioxide emissions regulations.

Are corporations making progress?

In the background of these events we have the influence of the comprehensive statutes and rules emanating from the 2002 Sarbanes-Oxley legislation. In June 2004, the law firm of Goodwin Procter reviewed the progress companies are making in complying with the Sarbanes-Oxley Act of 2002 (SOX), especially in terms of how environmental health and safety (EHS) managers and in-house counsel identify, estimate, internally report, and prepare public disclosures of potential environmental costs and loss contingencies. The law firm noted that over the prior two years, auditors have asked more frequently for documentation showing what procedures EHS managers follow in gathering and gauging information concerning the existence of potential costs and liabilities.

Conclusion

SOX requires CEOs and CFOs to certify their internal financial and SEC disclosure controls and procedures, and so environmental management systems are under "renewed scrutiny" (by top management,
auditors, etc.). Environmental groups, the Corporate Sunshine Working Group, and others see SOX as leverage to advance more rules for accounting for and reporting environmental costs and loss contingencies. In response, companies should audit their own environmental management systems to ensure these provide adequate procedures for collecting and analyzing information.

As the corporate form of organizing the business enterprise became the dominant structure for business, public companies have learned to "live with" increasing oversight and regulation of their activities that have external impacts—and especially their activities related to human health and safety and environmental protection.

The shift to "sustainability" and the emphasis on building long-term, sustainable ventures that are "earth-friendly" appears to be creating opportunities for corporate managers and investment bankers. The challenge will be in the transition to new forms of accounting [for environmental liabilities] and the emergence of new disclosure requirements. The driving force will continue to be public opinion and political reaction to same, with institutional investors serving as the "grassroots" force.

NOTES
1 The emphasis is the author’s.
2 Machine in the Garden was also the name of a 1964 book by author Leo Marx.

3 Additional information is available on the COSO website at www.coso.org.
4 The workshop was entitled "Coming Clean: Corporate Disclosure of Environmental Issues in Financial Statements."
5 Additional information about the Corporate Sunshine Working Group is available online at www.corporatesunshine.org.
6 The Economist.
7 For details, see the ICCR website at www.iccr.org/issues/envjustice. Harry Van Buren is coordinator.
8 Articles on environmental law can be found on the Goodwin Procter website at www.goodwinprocter.com/pubpa.

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