

Sustainability: Business's New Environmental Obligation

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INTRODUCTION

Does business have any special obligations to protect the environment? In an essay that has become a classic within the business ethics literature, Norman Bowie concludes that business does not have any special environmental obligations, at least not in the normal understanding of this phrase. In Bowie's words: "Business does not have an obligation to protect the environment over and above what is required by law."¹

Bowie's conclusion is typical of mainstream theories of corporate environmental responsibility. These views hold that business is free to pursue profit as long as it complies with the law and causes no avoidable harm to others. From the classical model of corporate social responsibility associated with Milton Friedman to the more recent stakeholder theory, environmental concerns function as side constraints upon business's pursuit of profit. Business may have some negative duties regarding the environment, duties not to pollute and not to cause other avoidable harm, but business has

no positive duty to conduct itself in ways that contribute to long-term ecological and environmental well-being.

Under this standard model of corporate environmental responsibility, society gets two opportunities to shape business's activities in respect to the environment. We can press for environmental responsibility through the products we demand as consumers, or we can pass legislation requiring business to act in environmentally responsible ways. Absent consumer demand and legal mandates, business itself has no ethical responsibility to consider the environment and is free to pursue profits even if this might otherwise be judged environmentally harmful.

Given his philosophical and environmental starting points, Bowie's argument is well reasoned and persuasive. However, I believe that the entire framework in which his position is developed is misguided. Simply put, this is the wrong way to think about business, the environment, and ethical responsibility. A range of economic, environmental, and ethical realities at the start of the twenty-first

century require that we reconceptualize business's environmental obligations and redesign business institutions to meet standards of sustainability. Before explaining this claim, let us review the state of the world at the beginning of the twenty-first century.

THE NEED FOR A NEW PARADIGM

Why the need to reconceptualize and redesign business? Several undeniable facts about the world in which we live make this case. First, a large percentage of the world's population, mostly children and the overwhelming majority of them morally innocent in every way, lack the basic requirements of a decent human life. Lack of clean drinking water, nutritious food, health care, education, work, shelter, clothing, and hope is a daily reality for billions of people. Population growth, even at the most conservative rates, will significantly exacerbate these problems in the near future. Because population growth is highest in those areas in which people are already most at risk due to the effects of poverty and oppression, these ethical challenges will only worsen in the future.

To meet these fundamental human needs on such a grand scale, the world's economy must produce substantial amounts of food, clothing, shelter, health care, and jobs and distribute these goods and services to those in need. Clearly, then, significant worldwide economic activity must occur if these harms are to be addressed at all.

Furthermore, these challenges will impact the nature and practice of virtually every business. An increasingly integrated global economy means that fewer and fewer business decisions anywhere can be made in isolation of the social, political, environmental, and economic events happening throughout the rest of the world. Gone are the days when business decisions in the United States or

Western Europe could be made in ignorance and independence of financial markets in China, labor markets in India, or resource markets in the Middle East. Economic activity aimed at meeting the needs of the expanding world's population has already shifted the economic center of gravity away from the United States and Western Europe and towards Asia.

The extensive economic activity required to address these goals must rely on the productive capacity of the earth's biosphere. Two facts about that biosphere are at the core of my argument. First, the economy is but a subsystem within earth's biosphere, and therefore the biosphere establishes the biophysical parameters of economic growth. Second, that very biosphere is already under stress due to the level and type of activity that characterizes the present world economy.

Given these realities, those of us living in the consumerist economies of the developed world are faced with three alternative conclusions. First, we can have faith in the assumption that the world's economy can continue to grow indefinitely and that the world's poor will be able to satisfy their basic needs and even attain prosperous lives and a higher standard of living. We can assume, in other words, that there are no practical biophysical limits to economic growth and that business as usual can be expanded globally and into the long-term future without catastrophic environmental consequences. Second, we can conclude that the world's poor will not, cannot, or should not strive to satisfy their basic needs or for prosperous lifestyles and that they will or should remain poor. Third, we can conclude that alternative economic institutions must be created to meet world demand without further destroying the biosphere.

We have good reasons to doubt the legitimacy of the first option. Imagine the present American and Western European paradigm of

economic growth and consumerism expanding to the earth's entire population of slightly more than 6 billion people. Envision a world in which the 1.3 billion people presently living in China used as many resources and created as many wastes as the 300 million people of the United States. One estimate has it that if China consumed oil at the rate of the United States, it would consume 80 million barrels of oil each day, which alone is more than the world's total production of 74 million barrels a day. If the Chinese economy ever reached the level of CO₂ emissions as the present U.S. economy, China alone would produce double the present worldwide CO₂ pollution.² The earth's climate is already reacting to the present levels of CO₂ and other greenhouse gas emissions caused by modern industrial society. Imagine that same world in which not only China, but the 1 billion people of India join the economic party at the same rates. Add to that another billion people living in Indonesia, Brazil, Russia, Pakistan, Bangladesh, and Nigeria.

The second option is not a real choice either. Believing that the world's poor will not, cannot, or should not strive for more prosperous lifestyles is, at best, a policy of self-deception.

This leaves the third as the only realistic and ethically satisfactory option. Unless a model of business can be created that allows significant economic activity without further depletion of the biosphere's ability to support both life and the very economic activity on which it depends, humans are facing a global ecological, economic, political, and ethical tragedy.

A background assumption of most mainstream theories of corporate environmental responsibility is that profits and the environment represent a zero-sum game. Resources devoted to protecting the environment come at the expense of profitability, the pursuit of profit excludes environmentally responsible practices. But this assumption is unwarranted.

Consider how this assumption plays out in Bowie's view. Business cannot be expected to

act in environmentally responsible ways unless consumers demand it or the law requires it. Requiring business to do otherwise violates the "ought implies can" maxim: ethics cannot require us to act in ways that we cannot. In the business context in which Bowie applies this maxim, this means that business cannot be required to act in ways that would put itself out of business by being unprofitable. If consumers demand environmentally responsible products, then business can be both environmentally responsible and profitable. If the law requires it, then environmentally responsible businesses are not at a competitive disadvantage with less responsible businesses. Absent consumer demand or legal mandates, business cannot be expected to put itself at risk by pursuing environmental goals.

But this background assumption underestimates the range of managerial discretion. Independently of environmental issues, business managers and executives enjoy a wide range of decision-making discretion. There are countless ways to pursue and attain profitability even within a single firm or industry. We should abandon the assumption that environmental responsibilities are side constraints on "the" pursuit of profit, as if there is only one way to pursue profits and ethical obligations are a barrier to that. Rather, we should recognize that some avenues to profitability are environmentally risky, others environmentally prudent and sensible. Sustainable societies generate both new responsibilities and new opportunities for business in the twenty-first century.

This model is what I refer to as sustainable business.

SUSTAINABLE BUSINESS

For some observers, these considerations might suggest a "doom and gloom," pessimistic outlook. While we should not underestimate

the real and significant ecological dangers we face, this is also the time to call forth human creativity, imagination, and ingenuity. The call for sustainability should also be understood as a call for entrepreneurs to imagine the future and help create the sustainable business firm of the twenty-first century.

Business in the twenty-first century must be practiced in a way that is *economically* vibrant enough to address the real needs of billions of people, yet *ecologically* informed so that the earth's capacity to support life is not diminished by that activity and *ethically* sensitive enough that fundamental human needs are met in the process. Economics, ecology, and ethics form the three pillars of a sustainable society.

Fortunately, some early versions of such a model of business are beginning to appear. What has been called, alternatively, "sustainable business," "the next industrial revolution," or "natural capitalism" provide models for business which can, in the words of the U.N. Commission on Sustainability, "meet the needs of the present without jeopardizing the ability of future generations to meet their own."³ It is a new business model that emerges out of a paradigm shift in economics, management, and ethics. We must, to borrow the phrase of economist Herman Daly, abandon the economic model that takes unguided *growth* as the economic goal and replace it with one that targets economic *development*.⁴

What is the model of business that emerges from this new economics? First, we should recognize that there is not a single, unique way in which a sustainable business should be organized. Several models have been described in the literature, but we can abstract some common aspects of these various models.⁵ The first aspect is a significant increase in economic efficiency brought about by design changes inspired by biological processes. This alternative business model should be based on a principle of biomimicry in which wastes of the production cycle are recycled back into a closed loop.

"Waste equals food," in the words of William McDonough and Michael Braungart. Just as the detritus of decomposed material is turned back into fertile soil within biological systems, sustainable business must be designed so that its by-products are themselves the resources for new productivity.

A second feature of sustainable business shifts the goal of production from goods and products to services. Human beings *need* surprisingly very few *products*: food, water, and clean air are obvious examples, and so far at least, only the first two have become commodities. Human beings do need many *services*: education, health care, shelter, security. As consumers, we need very few of the products purchased in the marketplace. What we actually *want*, although we often do not fully understand ourselves, are services. As the popularity of auto leasing shows, consumers want convenient personal transportation, not necessarily ownership of an automobile. As the information technology industry is showing, consumers want easy access to software, Internet, and e-mail, not ownership of a soon-to-be-outdated piece of computer hardware or software written on 3½-inch floppies. As Interface Corporation has shown, people want floor-covering services, not carpet ownership. This list goes on.

This focus on services rather than products has important implications for both business and consumers. By emphasizing services rather than products, business has strong financial incentives to create longer-lasting, more durable products that are easily recycled back into the product stream. Significant entrepreneurial opportunities exist here for creative business leaders to seize this initiative in creating a service economy. Significant economic opportunity also exists as one-time-product purchasers become long-term-service lessees. Consumers benefit if they are helped to escape what has been called a commodity fetish.

Another aspect of this alternative model requires business to invest in natural capital. For too long, business (and growth-based economics) has treated the productive capacity of the earth's biosphere as an unending revenue stream. Earth's productivity was something that could be spent without cost. Only in the last few decades have the true costs of spending down our natural capital been understood. The better metaphor is to think of the earth's productivity as capital, as something capable of generating revenue in the form of interest but not something that should be spent to the point where it is incapable of continuing to be a source of income. A prudent financial strategy is to spend interest but not capital. The earth has demonstrated a remarkable ability to produce life-sustaining necessities indefinitely, but only if we maintain sufficient savings in reserve to generate these necessities indefinitely.

One of the most interesting things about this alternative model of sustainable business is the huge potential it holds for entrepreneurial activity. Creative business leaders will find vast opportunities for new business ventures that transform business from the old industrial model to the new sustainable model. Thus, Bowie's fear that doing good is too much to ask of profit-seeking institutions is ill-founded. Sustainable business does not ask managers to forego profits (although it would require that profits from ecologically destructive activities be abandoned); it only requires that profits be obtained in ecologically sustainable ways.

The ecological guidelines for this new approach to business are, in their most general form, relatively straightforward. The entire economic production process takes resources from the biosphere, turns them into products and services, and generates by-products (or wastes) in the process. The ecological guidelines for sustainable business mirror the two sides of this production cycle. Resources going

into the production process should be used only at the rate at which they can be replenished by the productive capacity of the biosphere. *By-products and wastes of this production process should be generated no faster than the earth's capacity to absorb them.*

More specifically, we can recognize that economic resources come in a variety of types. Some are nonrenewable, either in principle or in practice. Once a species becomes extinct, humans will never again have the ability to use it. Once oil or coal is burned, it is gone forever, in any practical sense of the word. Thus, use of nonrenewable resources ought, eventually, to be eliminated but should, in the meantime, be reduced to a minimum.

Other resources are renewable, some only within certain parameters, others practically without limit. Agriculture, fisheries, and forests are renewable, but only if we use them at moderate rates. Used wisely, the earth can produce biological resources at a sustainable rate indefinitely. Other resources—energy produced by the sun, hydrogen, wind, tides, and geothermal sources—are for all practical purposes infinite. An efficient, wise, and ethical sustainable business will use these infinitely available resources first, moderate its use of other renewables, and wean itself from reliance on nonrenewables.

Similar guidelines can be developed on the waste and by-product side of business. Waste is a bad thing, both economically and ecologically. Sustainable business must strive to eliminate all of the wastes created along each step of the production cycle. In general, all wastes are sent back into the earth's biosphere and, to be sustainable, must not be put there beyond the capacity of the biosphere to absorb them. For some by-products that will be easy. Much agricultural waste, for example, can be recycled back into the earth as mulch. For other by-products, the pollutants of much of the petrochemical or nuclear industry for example, that will be impossible. Such wastes will

need to be eliminated. But, to emphasize, business wastes are not only an ecological harm, they are also an economic harm. As the word itself suggests, wastes are unused resources and any business that has a lot of waste is an inefficient and poorly run business. Great economic opportunities exist for discovering ways to transform this waste into useful resources.

THE BUSINESS CASE FOR SUSTAINABILITY

As previously outlined, both history and ethics can encourage us to think of sustainability and business as a zero-sum game: environmentally sustainable decision comes at a cost of profitability; pursuing profits requires business managers to forgo environmental responsibility. But the possibility exists that what is right in terms of sustainability, may also be right in terms of business performance. One of the three pillars of sustainability, after all, is economic sustainability. If we expect business to address the significant global economic and environmental challenges of the twenty-first century, we need vibrant and stable, i.e., profitable, businesses. Simply put, a sustainable business must be a profitable business.

Concluding that business should not produce environmentally responsible goods and services unless and until consumers demand them also misrepresents the dynamics of the marketplace. Consumers cannot demand what doesn't exist and what they do not know about. For example, Toyota did not wait until consumers demanded hybrid cars before they began designing and manufacturing the Prius. Toyota itself helped create the market for hybrid cars. In contrast, by concentrating on past demand patterns, American automobile manufacturers were left behind in the hybrid market.

Similarly, waiting for legal mandates out of a fear of being placed at a competitive

disadvantage has itself proven to be a competitive disadvantage. Business at the cutting edge of sustainable products and services will enjoy the advantages that go along with being the first to market. They are also likely to be the one who help establish future standards.

The sustainability paradigm starts with the assumption that the time is approaching when business institutions will either evolve into more sustainable enterprises or will simply cease to exist. The two forces of increasing social demand for goods and services and the decreasing ability of the biosphere to provide resources to meet that demand are approaching a point at which they will merge. That assumption is less a prediction of doom than it is an observation of present realities. But forward-looking, creative, and entrepreneurial companies will recognize this trend as offering tremendous opportunities rather than as creating barriers.

Barring a catastrophe, society will survive and vibrant businesses must play a role in that survival. All models for sustainable development envision a central role for business in a sustainable future. It will, after all, be the businesses of the next industrial revolution that meet the real needs of the billions of people living in that sustainable future. The businesses that survive in this sustainable world will be businesses that anticipate this change and adapt to it on their own terms.

So, can a "business case" be made for the move towards sustainability? In fact, some persuasive reasons can be offered to the business community for why it should move in the direction of sustainability. First, of course, is the huge market represented by the billions of human beings who face unmet needs on a daily basis. All too often economists and business managers conceptualize consumer demand in ways that ignore the needs of the billions of human beings who lack food, clothing, shelter, medical care, jobs. There are enormous opportunities waiting for the businesses who respond to this market.

A convincing and detailed case for how this might happen has been made by business scholar C. K. Prahalad in his book *The Fortune at the Bottom of the Pyramid*.⁶ Prahalad and others have argued that entrepreneurial and creative businesses are finding ways to develop markets among the world's poorest people. The 4 billion people comprising the base of the pyramid (the phrase changed by Stuart Hart to avoid the pejorative-sounding "bottom"⁷) provide a market so large and diverse that it can be addressed only in ways that are environmentally sustainable. It will simply be impossible to meet those needs with products and services that are resource and energy intensive, environmentally destructive, or socially insensitive. Sustainable enterprises will find huge markets at the base of the pyramid that unsustainable business and industry will be unable to satisfy.

Beyond the unlimited opportunity for new markets, there are many potential cost savings available from the move towards sustainability. Significant savings can follow from eliminating wastes, reducing operating expenses, and striving towards ecoefficiency. Waste is a bad thing, both ecologically and financially. A company that reduces and eliminates its wastes will reduce its costs. A company that finds ways to turn waste into a new resource will increase its revenues from already existing assets.

Sustainability also creates opportunities to decrease capital costs in building or remodeling facilities. Buildings designed from the start to be energy efficient, with bright, airy, and well-ventilated space will decrease costs and improve efficiencies over the long term. William McDonough and Michael Braungart's work with a new manufacturing plant for Herman Miller, a large office furniture maker, is a case in point. Herman Miller has a long tradition of socially responsible practices and has worked with McDonough and Braungart's cradle-to-cradle design protocol to develop truly sustainable furniture products. But in the early

1990s, Herman Miller also worked with McDonough to design and build their new manufacturing plant in Michigan. The new design has paid dividends in the form of lower energy costs and increased worker productivity. Herman Miller has also been instrumental in creating the United States Green Building Council (USGBC) in 1993. The council describes itself as "the nation's foremost coalition of leaders from across the building industry working to promote buildings that are environmentally responsible, profitable, and healthy places to live and work."⁸

Sustainable companies can also acquire competitive advantages. Not only would increased savings, revenues, and efficiencies place a company in a better position relative to its competitors, but sustainable companies are poised to take advantage of "green" and sustainable markets. Sustainable practices should not be only a marketing tool, of course, but one should not underestimate the growing consumer market for sustainable and environmentally beneficial products and services.

Another aspect of the competitive advantages of sustainability lies in the labor market. Herman Miller discovered that their green building became very popular with employees. Improved morale, increased employee loyalty and, simply, healthier and more attractive working conditions for employees were added benefits of McDonough's sustainable design principles.

Business should also recognize the real possibility of future government regulation that may well require steps towards sustainability. The companies already involved in sustainable practices are likely to play leadership roles in fashioning future standards. Again, Herman Miller provides an excellent example. In 1993, Herman Miller was a founding sponsor of the United States Green Building Council. The USGBC is a nonprofit organization of architects, construction companies, engineering firms, and others in the building

industry committed to promoting “environmentally responsible, and healthy buildings for business and homes.” The USGBC developed the LEED rating system (Leadership in Energy and Environmental Design), a voluntary classification system of common standards for creating and measuring sustainable buildings. The USGBC used Herman Miller’s manufacturing plant designed by Bill McDonough as a model for the LEED certification and rating process. Today, there is a growing movement, especially among state and local governments, to require new construction to conform to minimal LEED standards.

In the past, many companies waited until environmental regulations coerced them into action. At that point, many were overwhelmed by the costs of cleanup and compensation. Companies that wait will likely deal with sustainability as a compliance issue take similar risks. By taking the initiative in designing and constructing a sustainable building, Herman Miller helped create and set the standards that less innovative companies will now be challenged to meet.

Finally, avoiding future legal liability provides another business reason for the move towards sustainability. There is no better means for managing both regulatory and legal risks than by being proactive in taking steps to prevent problems from occurring. The legal concepts of negligence and foreseeability are just waiting to be exploited in holding business liable for the entire life cycle of its products. As municipalities struggle to find ways to dispose of solid wastes or clean up old polluted landfills, an obvious strategy will be to turn to the businesses who designed, manufactured, and sold those products and hold them accountable to take back their products, or pay for their proper disposal and cleanup.

Legal developments in Europe and elsewhere already foreshadow this future. Beginning in the early 1990s, several countries have passed legislation mandating producer

responsibility for the wastes created by their products. Various referred to as “take-back” laws or “extended producer responsibility,” such laws require that business be responsible financially, if not physically, for the eventual disposal or recycling of products that they place into the market.

Spurred on by the European Union’s Waste Electrical and Electronic Equipment (WEEE) and Restriction of Hazardous Substances (RoHS) directives, over 20 European countries have already passed laws which encourage or require manufacturers to take responsibility for the eventual disposal of such products as batteries, electronics, fluorescent lights, appliances such as refrigerators and air conditioners, televisions, and automobiles. Japan, South Korea, and Taiwan have similar legislation.

Business executives who do not anticipate such developments on a wider scale by beginning to redesign their products in ways that make reuse and recycling easier and even profitable are not acting as very prudent risk managers.

FINAL REFLECTIONS

The concept of sustainability has grown out of the recognition that economic development on a global level cannot be separated from questions of social justice and from ecological stability. The new worldview emerging as an alternative to the reigning paradigm of economic growth and free markets holds that long-term sustainability is the criterion of successful economic and social development. Sustainability involves three equally vital dimensions: economic, ecological, and ethical. Business, within this conceptualization, is no longer understood as having a primary economic goal, with ethical and environmental considerations functioning as side constraints. Business has three equally compelling goals that must be balanced over the long term.

Environmental responsibility functions less as a side constraint on normal business activities and more as a central part of the very mission of business in the twenty-first century.

NOTES

1. Norman Bowie, *Morality, Money, and Motor Cars*, reprinted in this chapter.
2. These estimates are from Lester Brown, *Eco-Economy: Building an Economy for the Earth* (New York: W.W. Norton & Co., 2001).
3. This definition of sustainability comes from the United Nations World Commission on Environment and Development (the "Brundtland Commission"), which published its findings on economic development and the environment in *Our Common Future* (New York: Oxford University Press, 1987).
4. Herman Daly, *Beyond Growth* (Boston: Beacon Press, 1996).
5. My own thinking on this has been particularly influenced by three approaches: Herman Daly's writing on ecological economics and especially in *Beyond Growth*; Amory Lovin, Hunter Lovins, and Paul Hawken's *Natural Capitalism* (Boston: Little, Brown, 1999); and William McDonough and Michael Braungart's, "The Next Industrial Revolution," *Atlantic Monthly* (October 1998).
6. *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*, by C. K. Prahalad (Upper Saddle River, NJ: Wharton School Publishing, 2005). See also Prahalad and Stuart Hart, "The Fortune at the Bottom of the Pyramid," *Strategy and Business* 26 (2002): 54–67; and Prahalad and Allen Hammond, "Serve the World's Poor, Profitably," *Harvard Business Review* (September, 2002).
7. Stuart Hart, *Capitalism at the Crossroads* (Upper Saddle River, NJ: Wharton School Publishing, 2005), 108, footnote 4.
8. Information about Herman Miller's long tradition of working towards sustainability can be found on the company's Web site: <http://www.hermanmiller.com/>. The United States Green Building Council also maintains a helpful Web site, with links to local affiliates, at <http://www.usgbc.org/>.