

Highlight

Sustainability and Management Competence

By Steven Cohen

After decades at the periphery of political and business agendas, sustainability and environmental protection have emerged at the center of our economic and political dialogue. Below, Steven Cohen argues that increasingly, an organisation's ability to achieve sustainability is seen as an indicator of a well-run organisation.

The Challenges of Sustainability

In the past several decades, we have developed what I sometimes call a brain-based economy. The high value added elements of modern economic life involve analytic concepts, technological development, mathematical models, communications and creativity. We have developed a highly mechanised, energy intensive, high throughput economy that is chewing up the planet's resources at a ferocious pace. This has resulted in rising prices of raw materials and in massive destruction of environmental resources that provide us with free "ecological services" such as clean water and air. Shutting down this economy to prevent further damage is not an option. Instead, given the needs of the developing world, I fully expect the world's economic production and consumption to grow dramatically through the 21st century. The only way this growth can be both achieved and maintained is if we pay far more attention to the natural resource base of our economies and the impact of economic development on self-renewing, interconnected ecological systems.

The cost of mistakes will continue to grow if we do not learn how to manage our organisations and their production according to the principles of environmental sustainability. Our planet is more

crowded and resource-stressed than ever. These facts, along with a more interdependent global economy, place increased demands on organisational management and inter-organisational networks. A waste that could be released into the air or water in 1940 and avoid human impact can no longer be disposed that way. Coordination among the decentralised networks that produce the goods and services we depend on requires well-functioning transportation, water and energy infrastructure. Our use of energy and consumption of raw materials dwarfs the consumption rate of a century ago. The management of our complex and interconnected economy and the maintenance of the planet that it depends on require sophisticated sus-

tainability managers in the private and public sectors and a set of environmental rules that can't be bargained away for short-term material wealth.

Sustainability Management

What is sustainability management? It is economic production and consumption that minimises environmental impact and maximises resource conservation and reuse. The depletion and degradation of our natural resources has changed the cost structure of production in all organisations. Leaders and managers must now redouble efforts to make efficient use of energy, water and other raw materials, and must pay attention to the content and full cost of the waste produced by their business processes. The issue of sustainability is no longer a luxury item or an add-on to those factors routinely addressed by management; it has moved to the apex of management concerns. Following the lead of both private sector corporations and public sector policymakers, the field of sustainability management is focused on analysis of strategies and implementation of the most effective

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technologies and policies.

This new field of study combines organisational management with the field of environmental policy. In some respects, a concern about sustainability is an effort to correct modern management and move it away from theory back into the real world of physical resources and constraints. The principles of sustainability management are built on an understanding of our dependence on nature for human well-being. Nature is not protected for its own sake, but for ours. These physical dimensions of sustainability can no longer be ignored. The field of sustainability management can help us manage our global economy, ensure long-term growth, and secure a sustainable material future, but we need public policies and private management innovation to accelerate the transition to such a sustainable economy.

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Sustainability management requires that organisations learn how to think about the long-term instead of focusing on weekly, quarterly or daily reports. In a world of global 24/7 electronic media, never ending financial exchange, and low cost information and communication, the pressure for immediate information, accomplishment and gratification is overwhelming. Election cycles have become endless in politics and corporations are no longer managed to the quarter or year, but to the minute. If we are to achieve a sustainable economy and learn how to consume without destroying this planet's productive capacity, we must figure out a way to slow down the management merry-go-round.

The Evolution of the Environmental Movement

I keep hearing that environmentalism is on the wane and that the political world no longer cares about the planet's well-being. That is, of course, complete nonsense, as is the idea that environmental quality is some kind of luxury item. Our modern economy and way of life are based on a series of technologies that cannot be sustained the way they were originally developed.

Many pundits and politicians are stuck in a 20th century notion of environmental protection and seem to have missed the transition to sustainability. When the environment emerged as a political issue in the early 20th century it was all about Teddy Roosevelt-style wilderness conservation. The environment was thought of as a "thing of beauty" and its protection was seen as an elite issue. This definition is out of date, but has persisted since that time. In the 1960's and 1970's we became aware of the interconnectedness of the environment due to the superb analytic and communication skills of environmen-

talists such as Rachael Carson and Barry Commoner. Their work led to a redefinition of the environment as an issue of public health. We didn't protect the environment because we loved nature; we protected it because a polluted environment could make you sick.

While the issues of conservation and environmental health remain with us in the 21st century, the transformation of the environmental argument to one of sustainability has changed the issue's definition and brought it from the fringe to the center of the political agenda. Environmental quality was initially defined as something that might be expensive, but if pursued would bring benefits such as higher quality of life and better health. Environmental protection was something that was done after production was complete, by treating waste at the end of a pipe; or it was something that was undertaken after consumption took place when waste was cleaned up, treated, or disposed. The sustainability perspective turns this traditional definition upside down.

As the population of the planet grows and the consumption of land, food, water, energy and raw materials grows along with it, we are learning that we cannot simply use stuff up, destroy the landscape and move on to the next mountain or valley. The current approach to economic life has created a lifestyle our forbearers couldn't even dream of, but it cannot be sustained without a revolution in management, technology and scientific understanding of our home planet. Fortunately, I think we are capable of creating the change we need.

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The Sustainability Perspective

Sustainability is an effort to sustain production today without impairing our ability to produce in the future. Our goal is not conservation of resources, but the continued productive use of them. We do not conserve resources for posterity, but we manage resources for their continued use. If a resource can only be used once, we try to learn how to re-use it, or we try to avoid using it. Our goal is to base our consumption on resources that can be grown or renewed. The best, most effective managers will be sustainability managers and the best run organisations will adhere to sustainability principles because they lead to long-term profitability. A sustainability perspective would lead a CEO to question an entire production process and to see if there was some way to manufacture the same good or service without generating pollution and waste in the first place.

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poisoning people or the planet may provide some short-term benefits, but our experience with environmental remediation and restoration tells us that these short-term benefits are consumed quite rapidly, and are soon replaced by longer term costs. Clean-up costs may seem optional, but if the alternative is to allow a key resource to be destroyed, the cost must be paid. Since 1980 and for the foreseeable future, America's military, industries and citizens will be paying hundreds of billions of dollars to clean up the toxic wastes dumped throughout the 20th century. China will soon be facing a similar clean-up bill.

In sustainability management, environmental protection and efficient use of resources is not added to a production process but is central to that process. The best run organisations try to minimise their use of non-renewable resources and reduce their environmental and carbon footprint. Companies like Walmart do not do this because they love nature, but because they see it as a way to make money. It becomes yet another cost advantage a company uses to beat the competition.


Evolution of Organisational Management

I believe that sustainability is simply the latest step in the past century's evolution of the field of organisational management. The development of the modern field of management began in the early 20th century with the invention of the techniques of mass production and the assembly line -- followed by the start of modern human resource management. Later, we saw the development of Generally Accepted Accounting Practices (GAAP) and the evolution of the Chief Financial Officer. In the 1960's-1990's, computing and communications technology advances resulted in the growth of non-financial performance indicators. Well-run organisations established Chief Information Officers to manage the exponential increase in information pouring in and out of the

organisation. By the end of the 20th century the growth of the global economy required that many organisations develop more capacity to operate internationally. The modern CEO must now understand all of it: production, finance and financial management, human resource management, information management, and international trade and commerce.

A decade into the 21st century, organisational management needs another dimension: a physical one. In the old days, water, energy and waste were minor factors in an organisation's cost equation. Those days are gone. On an increasingly crowded planet, the scale of production of everything has grown and with it we see an increased draw on the earth's finite resources. The costs of water, raw materials and energy are an increasingly important part of the cost calculus for the modern organisation. Waste disposal is no longer cheap or free and the organisation that figures out a way to reduce and re-use waste has a significant cost advantage over organisations that do not.

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My view is that within a decade the definition of effective management will include sustainability management. A well-managed organisation will be one that ensures that physical constraints, resource costs and environmental impacts are inputs to routine decision-making. I think this can be done, and I think it must be done. I am optimistic that these things can be accomplished not simply because of the urgency of the issue, but because of the cost factors that have begun to drive sustainability in many organisations. Companies like Wal-Mart started to require that their suppliers demonstrate adherence to sustainability principles as a way to control price without sacrificing quality. While we have not yet figured out how to manage our organisations, cities and planet sustainably -- we have begun to try. 

About the Author



Steven Cohen is the Executive Director of Columbia University's Earth Institute and a Professor in the Practice of Public Affairs at Columbia University's School of International and Public Affairs. He is also Director of the Master of Public Administration Program in Environmental Science and Policy at Columbia University's School of International and Public Affairs and the Director of the Masters of Science in Sustainability Management at Columbia University's School of Continuing Education. He is a consultant, former policy analyst, and former member of the Advisory Council on Environmental Policy and Technology for the U.S. EPA.