
The Sustainability Generation: Preparing Future Leaders

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Introduction

Environmental problems present private-sector managers with challenges that differ from and go well beyond those typically encountered in “ordinary” or “run-of-the-mill” business pursuits. Likewise, many in non-governmental, public, and non-profit environmental and conservation organizations — where genuine appreciation for the importance of the environment abounds — find themselves ill-prepared and equipped to lead and operate these “green businesses” for lack of basic managerial skills. Specific details of these challenges need to be understood and accommodated as we train future generations of leaders for the private, public, and not-for profit sectors.

Environmental Problems — Special Challenges

The information required to grasp and manage environmental problems differs from and exceeds that generally required to run a business. The complexities and uncertainties of natural systems demand that one rely on science and scientists in often extraordinary ways. Science may be essential, but what disciplines matter and whom should one consult, listen to and trust? Single disciplines seldom cover the problem on their own, and the additional complication of working in an interdisciplinary scientific setting is increasingly the norm. Unfortunately, universities and other institutional sources of specialized scientific knowledge are rarely if ever organized to help one with real environmental problems. Or, as a cynical colleague once put the matter: “Universities have departments, the world has problems.”

Another common experience for those trying to deal with environmental problems is that there is never enough scientific information — a condition brought about when reliable predictions are scarce and honest differences of opinion about even basic matters of fact abound. “Doing nothing” in the face of unsettled scientific consensus often results. Witness the U.S. Government’s handling of global climate change in the last years.

All too often scientific information, as in “just the facts,” turns out to matter less than or even not at all as compared with popular perceptions of the world. Different views, different values, and sometimes plain ignorance all weigh in

more heavily than matters of fact as seen from a scientific standpoint. In these circumstances, the perceptions are the reality that must be managed. Witness here consistent findings showing differences between scientifically determined risk assessments and their paired findings of risk perceptions in the same problem settings.

Money and power matter at least as much as information and contribute to the difficulties of environmental problems. Short-term exploitation favored in many economic theories and by financial analysts necessarily means less concern about longer-term outcomes and effects. Prevalent political calculations are no less threatening to the environment, especially as benefits are counted up in the immediate term and for one’s constituents while costs are deferred until later and are also spread out over as many others as possible. This same calculation, taken from a contrasting environmental perspective, presents costs now, often focused on specific individuals, groups, or organizations while projecting benefits to accrue at some future time and often for persons unknown or even unborn. Little wonder that politicians often seem reluctant, or are even loath, to lead in solving environmental problems.

Natural ecosystems rarely, if ever, correspond to political boundaries. Specific spatial and temporal characteristics of ecosystems seldom conform to economic characteristics or boundaries either. Managing a valuable fishery or trying to deal with something as politically fraught as a Yellowstone Park emphasize the first point, while confronting “stranded” or abandoned assets left as old mines, power plants, and other enterprises run their course and go out of business illustrates the second.

Another ecosystem characteristic, with somewhat disquieting implications, occurs when a system is pressed beyond some natural threshold and is either slow to recover or changes in some fundamental or even irreversible way. Human health cumulative effects from toxics, bioaccumulation in food chains and webs, overexploited fisheries that “crash,” and run-away effects of introduced exotic species all come to mind. All of these circumstances in various ways may result in crises that force reluctant leaders into action for better or worse.

One point coming from this summary is that managers must be trained well beyond the commonplace professional disciplines and skills to deal effectively with environmental

problems. Fortunately, this message is getting through to some in business and management schools and as it does the demand for people with skills in the management sciences coupled with an appreciation of the environment and a capacity to organize and lead complex groups of scientific specialists increases.

A second point is less apparent and focuses on environmental or “green” organizations where leaders are genuine masters of such problems. Such environmental mastery, however, is rarely matched with an equal capacity to manage the financial, political, and human aspects of many of today’s complex “green” businesses.

This lack of human capacity is becoming a serious constraint in the ability to resolve critical biodiversity and sustainability issues. As conservation and environmental work becomes increasingly complex as a result of the size, geographic scope, and financial resources available, the demand for people with skills in both the environmental sciences along with traditional leadership and management increases.

Training Leaders — The Usual Approach

The usual Master of Business Administration (MBA) program runs for two years and traditionally features a common core of business subjects during its first year. Heavy emphasis is placed on learning and applying economics in its various guises, e.g., microeconomics, game theory, finance, accounting, marketing, strategy, with the result that very little room exists for nontraditional topics. Electives are available in the second year, but these are usually in-depth elaborations of topics presented in the first-year core. A course in “Environment, Safety and Health” or one centered on the critical role of deregulation in creating more efficient markets may be the sole exposure to things environmental. “Frivolous” subjects such as ethics or public policy may be offered but not emphasized or promoted. Apparently far-a-field subjects such as health, law or the environment are rarely required and are seldom even available to the MBA student.

The usual training program for resource, conservation, and environmental leaders is tilted in its own distinctive way. Given the wide range of disciplinary and topical possibilities, it is exceptional to find a faculty agreeing and committing to a common core of eight to ten courses in the first of a two-year professional masters program. Most such programs will emphasize one or more of the basic environmental sciences, e.g., ecology, biology; a specific resource or two, e.g., fisheries, forestry, wildlife; perhaps something about public policy, e.g., political processes and institutions, conflict management; economics, e.g., resource economics, forest economics; and occasionally a course or two dedicated to anthropology, human values, or other “softer” subjects. The common char-

acteristics among and between professional training programs are that there is no agreement about essential core requirements and there is little or no exposure to traditional management topics and skills. To the extent that economics, finance or organizational topics are considered at all, they are seldom given prominence and they are often treated derisively. Whatever the specific details of these training programs, it is exceedingly unusual for them to prepare graduates to lead or operate “green” businesses for lack of basic management skills. A considerable gap exists between the knowledge and skills we impart to business and environmental leaders, and they and the world at large are the worse for it.

Bridging the Gap: Pioneering Efforts

In 1982 Yale’s School of Management (SOM) and School of Forestry & Environmental Studies (FES) established the first program in the country that linked a professional business school with a professional school of resources and the environment. Joint degree students are admitted independently to the two schools and at the end of three years receive an MBA from SOM and a Master’s degree from FES. Both degrees are highly valued; either on its own is sufficient to qualify its recipient for a wide range of business or environmental leadership responsibilities.

Since its creation, the joint degree program in environment and management has produced more than 110 graduates whose careers are marked by a wide range of professional responsibilities and pathways. Despite their variety, certain consistencies exist that bear close consideration:

- Having two sets of high-quality skills enables graduates to function well in both the business and environmental realms. In business, they typically contribute an increasingly vital environmental sensibility and awareness, and in environmental organizations they provide management discipline and analytic tools that are often in short supply.
- In business, the understanding of environmental sciences and sensitivities allows alumni to stand out and rise to the top as business increasingly realizes that the environment is neither a nuisance nor an afterthought but is rather an essential and central fact of business life.
- In the environmental arena, these graduates typically end up running the “green” business, or at least important segments of it, and do so from the beginning of their careers.
- Also in the environmental realm, alumni often serve a moderating or bridging function seeking a common ground and constructive solution to otherwise impossible problems.

- Graduates of the joint degree program are leaders. Their leadership has been demonstrated in all sectors — public, private, nonprofit — and in a variety of venues ranging from the local to the global. Many move seamlessly among the sectors as their interests change and opportunities allow.

There are two pathways for admission to the joint degree program. The more direct path occurs when an individual applies to each of the two schools and is successful. Matriculants take a year of coursework in each school — including the core MBA sequence of courses — and spend the third year studying a blend of management and environmental subjects according to the individual's interests and needs. Two summer internships afford chances to sample both a typical business and environmental organization before settling on a course of study in the third year and also deciding on an initial career step.

A second pathway is followed when applicants are successful in gaining admission to one but not both schools and, nonetheless, decide to come to Yale. These students typically take the core management or basic environmental courses and apply again for admission to the school where they were initially denied. A slight variant on this process occurs when a student in one or the other school who did not originally apply for the joint degree program does so after coming to Yale.

Direct and collateral benefits of the joint degree program are numerous and extend beyond those achieved by the graduates themselves. More "traffic" between the two schools is notable and takes many different forms: regular students from each school are exposed to very different ways of thinking about and dealing with the world; faculty contacts with and through the students extends to several faculty research seminars that otherwise would not have been as likely. A vibrant research and teaching program in Industrial Ecology complements another in Industrial Environmental Management, both within the School of Forestry & Environmental Studies. A successful SOM faculty research seminar in environmental economics is about to be joined this year with another in effectiveness in nonprofit organizations. Business and environmental organizations alike are coming to understand the need for the combination of skills and understandings afforded by the joint degree program, as attested to by their expressions of interest, recruiting and other constructive links to Yale.

In 1992 the University of Michigan's top leadership committed the Michigan Business School and the School of Natural Resources & Environment to pursue the Yale Model and path (Brewer 1992). Circumstances and conditions were positive in that both of the Michigan professional schools had long histories of training leaders for their respective sectors, the university's leadership and many of its strongest benefac-

tors were convinced and supported the initiative, and the university was about to embark on the most ambitious fundraising campaign ever undertaken by a public university so creative programs appealing to supporters were appreciated. The eventual results center on a very successful Corporate Environmental Management Program (CEMP), a faithful replication of the original Yale joint degree program, and a very well endowed Frederick and Barbara Erb Environmental Management Institute that has independent resources to support a variety of faculty and students as well as numerous creative initiatives meant to close the business-environment gap.

Different Approaches

Yale and Michigan pioneered but many others are accepting and meeting the challenges noted previously, but each in their own appropriate way. The University of North Carolina's Flagler Business School accepted the challenge in the mid-1990s and hired one of Michigan's stalwart, pioneering faculty to lead its efforts, which he did with distinction and some success. Cornell recently committed its S. C. Johnson Business School to close the business-environment gap by hiring this same key faculty member from the University of North Carolina. While enrichment of the traditional MBA curriculum by the addition of courses and research on strategic environmental management and sustainability occurred at North Carolina and are certainly going to happen at Cornell, the absence of a full-scale, respected professional school of the environment in each place limits wholesale and balanced integration of environmental with business issues and concerns.

Having an environment school, but not having a co-located business school presents its own difficulties and complications, as those responsible for the Bren School at the University of California at Santa Barbara have discovered. In this instance a creative arrangement involving five of the business and management schools located elsewhere in the University of California system provides opportunities for prospective MBAs to concentrate in selected environmental subjects.

Duke University has the two professional schools, but despite sporadic faculty efforts it has not apparently been able to enlist meaningful and essential commitment from the university's top leadership to support these initiatives adequately. A somewhat similar, albeit importantly different, experience has limited the University of Washington. Too many different and competing resource and environmental schools and programs have made it next to impossible to link any one or group of them to its business school. Indeed, the environmental signature or standing of Washington's Law School makes it a meaningful potential collaborator in creative pro-

professional programs to bridge the business-environment gap, but including the business school in some fashion has so far not happened.

Harvard has taken its own path, of course. Environmental management — in terms of research and teaching — exists in many different “neighborhoods” and is usually associated with distinguished individual faculty rather than with a coherent program with its own identity. Accordingly, faculty committees and groups exist and help to promote specific centers, e.g., Center for Risk Analysis and Management, concentrations within existing Schools, e.g., energy, environment, or economics within the Kennedy School of Government, or an environmental specialty within the Harvard Business School that has to date produced an impressive array of case-based course materials.

Other specific approaches exist. Several law schools, including the University of Michigan, Boalt Hall at Cal Berkeley, Washington (as just noted), Lewis and Clark in Oregon, and the Vermont Law School have all trained lawyers who have assumed leadership and managerial roles in public, nonprofit and private environmental organizations. Many no doubt have performed admirably, but legal training is simply not equivalent to what an MBA receives if the goal is to be prepared to manage and lead modern, complex organizations.

International examples also exist, but for a variety of cultural and historical reasons none exhibits the genuine balance of professional skills and training that one receives in a true joint degree effort of the sort provided at Yale and Michigan. INSEAD in Fontainebleau, France is a highly regarded business school with a world-class MBA teaching faculty. It has had several environmental management electives since about 1990 with the institution of the Sandoz Chair. One distinguished faculty member who teaches several non-required elective courses is commendable, but it is hardly equivalent to a full-scale joint degree program. Industrial ecology, an interesting fledgling field linking engineering and the environment has gained its proponents in Sweden, Switzerland, and Austria — and probably other places as well; however, most of these teaching programs are heavily research based and somewhat narrowly focused. None has the full range of skill, theory, and applications one expects in a modern MBA curriculum.

In Sum

The Yale program to bridge the gap between business and environmental professions is certainly not unique, although it is one of the first. Several other universities are responding to the various challenges noted here, and all of these efforts are to be encouraged as the demand for differently and better-trained professionals is on the rise. There is

no single “message” to take away from the 20+ years of Yale’s experience, rather there are several thoughts, considerations and cautions — offered here as encouragements to others who see the need to close the gap in the best interests of preparing future leaders for our transition to a more sustainable future.

- There must be dedicated leadership at the very top, i.e., presidents, provosts, and relevant deans must see the value in making an effort to close the gap and then be willing to back innovations and experiments along appropriate lines.
- There must be strong academic and research bases to the program, without which faculty will neither respect nor participate.
- There must be “balance” and wide scope between the involved business and environmental faculty interests. One “environmental” person in the business school is no better than having just one “business” person to represent the environmental school.
- Business must be involved as a genuine partner.
- New and dependable sources of financial support are extremely helpful. Lacking them, one is put into a “zero-sum” circumstance fighting losing battles against entrenched, traditional, disciplinary interests.

Progress is being made in education and business around the world, but whether it is enough or even the “right” kind of education is still unclear. Multiple innovations and experiments are certainly called for and describing the Yale experience so far is intended to encourage others elsewhere to take initiatives.

Celebrate and encourage the leaders in this realm when they emerge — in business, education, environment and other related fields. It is abundantly clear that we can and must do better. Life, after all, is not a dress rehearsal.

Endnote

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References

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