Frameworks for choice: Core beliefs and the environment
O Riordan, Timothy
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Core Beliefs and the Environment
By Timothy O’Riordan

Environmental concern has become one of the most profound and enduring social themes the world over in the last 25 years. It has mobilized scientific innovation and collaboration to a truly remarkable extent. It has spawned a myriad of international treaties through which nations with greatly differing traditions and outlooks are pursuing common goals. It has stimulated a technological drive toward more efficient use of materials and energy that has become a growth industry in its own right. It has created regulatory agencies and approaches that are proving tough and effective. And it has spurred the formation of a host of interest groups comprising an enormous range of activities, people, and achievements. By any measure, environmentalism is a remarkable phenomenon.

Clearly, none of this would have occurred
without major shifts in public attitudes toward the environment over the past generation. The 25th anniversary of Earth Day seems an appropriate time to examine these shifts, to inquire how environmental beliefs are formed, why they endure, and on what grounds they change. It is important to remember, however, that such shifts do not occur in a vacuum. As was pointed out in the first article in this series, environmental viewpoints are embedded in a host of other social, political, and economic outlooks, only a fraction of which are influenced directly by the environmental dilemma. The end of the Cold War and the emergence of a truly international economy have rendered many aspects of life more complex and uncertain. At the same time, the public has become fairly sophisticated about social and ecological change, largely owing to aggressive media reporting and greater access to information. Even more significantly, the power base has broadened considerably, with consumer groups, social justice lobbies, and other nongovernmental organizations (NGOs) actively participating in the decisionmaking process. Thus, one cannot look at attitudes toward the environment without considering the whole complex of ideas and beliefs of which they are part.

Modern environmentalism, of course, has evolved in relationship to other social movements, especially the peace movement, feminism, and the consumer protection movement. Although this process has to some extent been mutually reinforcing for all the groups concerned, it has also put the environmental movement in danger of losing its identity. Indeed, there are many in the movement who oppose this tendency toward coalescence. For example, Jonathon Porritt, one of the most formidable exponents of environmental thinking in the United Kingdom, bemoans the tendency of "vaguely green . . . feminists and peace activists . . . underwriting or indirectly condoning the perpetuation of soul destroying, life destroying industrialism." Others, however, welcome the interconnections among social and environmental groups and anticipate even stronger alliances in the future.
The Need for an Environmental Ideology

The historical evidence is reasonably clear that human beings have to cooperate to survive and that they have to deal realistically with the limits set by nature. We have tended to chafe at such limits, however, caught between our desire to dominate the natural world and our recognition that we are completely dependent upon it. To cope with this fundamental contradiction, we have adopted a particular form of rhetoric: myths embodying idealized ethical norms that bind societies together and enable them to function. That is, we treat the question of our relationship to the natural world as a religious question. As the noted geographer Yi Fu Tuan has observed, myths enable people to cope with baffling contradictions and rapidly changing realities. "It is a paradox," he says, "that human beings can live in fantasy, yet not only survive but prosper."5 However, he also notes that a culture’s published ethos about its environment seldom covers more than a fraction of the total range of its attributes and practices pertaining to that environment. In the play of forces that govern the world, aesthetic and religious ideals rarely have a major role.6

According to philosopher Robert Engel, most faiths combine a restrain-

no amount of new moral resolve can by themselves put the world on a sustainable development path.7 Nonetheless, Engel optimistically suggests that sustainability can be achieved with the help of "spiritual disciplines that restore the proper relationship of human beings to the ground of being, disciplines that depend upon religious insight, and ultimately upon faith."8 Material progress has complicated the picture considerably as well. In his treatise on the evolution of attitudes towards the natural world in England between 1500 and 1800, historian Sir Keith Thomas mused on the relationship between a society that was becoming more secure and comfortable and a view of nature reflecting romantic idealism rather than a sense of fear and conquest:
The growth of towns led to a new longing for the countryside. The progress of cultivation had fostered a taste for weeds, mountains and unsubdued nature. The new-found security from wild animals had generated an increasing concern to protect birds and preserve wild creatures in their natural state.9

Thomas summed up the dilemma of the emerging industrial society as follows:
There was thus a growing conflict between the new sensibilities [including animal rights] and the material foundations of modern society. A mixture of compromise and concealment has so far prevented this conflict from having to be fully resolved. But the issue cannot be fully evaded, and it can be relied on to recur.10

One might say that Earth Day 1970 was a powerful manifestation of this prophesy.

Origins of Environmental Ideologies

In one way or another, environmental ideologies are shaped by four basic tensions in the human condition. The first is the tension between the desire for dominance and the reality of dependence that was noted above. The Genesis myth epitomizes the discomfort of coupling the attempted outward control of nature with the inner realization that this is ultimately fruitless and suicidal. Sooner or later, arrogance toward an unfathomable natural world will produce pain, grief, and economic hardship. This tension is also reflected in the well-known dichotomy between technocentrism (which is optimistic, managerialist, hierarchist, and reductionist) and eco-centricism (which is cautious, accommodating, egalitarian, and holistic).11

The same technocentrist-ecocentrist dichotomy is also present in the second of the four tensions, namely that between efficiency and equity. Technocentrism values efficiency more than equity and looks to self-regulating markets to ensure cost effectiveness and minimization of waste. Eco-centricism, by contrast, is more concerned about equity and prefers the more negotiated structures of social discourse, mediation, and accommodation (where the principles of natural justice, ecological responsibility, and the right to a reasonable standard of living are emphasized).12 (The division between technocentrism and eco-
centrism is discussed further in the box below.)

The third tension is between the demands of the present and those of the medium to long term (40 to 100 years hence). As was pointed out in the report of the Brundtland Commission, democracy, economic theory, and the law all favor the immediate and the known over the distant and indefinite. Although this triumph of technocentrism is entirely understandable (to some extent, progress has required setting aside the troublesome objections of ecocentrism), it leaves fundamental problems unresolved.

The fourth tension relates to the intriguing notion of property rights. In most legal systems, property ownership entails both rights and responsibilities. One clearly has responsibilities to his or her immediate neighbors, and the principle could easily be extended to more distant neighbors as well (such as global companions and generations yet unborn). Yet this broader and more civic interpretation of property ownership is rarely invoked. And when it comes to the great global commons of property that is res nullis (i.e., not owned by anybody in particular), then property rights are genuinely ambiguous. A flurry of legal interpretations have yet to bear definite fruit.

While technocentric and ecocentric leanings probably reside within every human being, certain social and occupational groups have tended to favor one view or the other. For instance, a study by sociologist Stephen Cotgrove found that managers, accountants, scientists, skilled manual workers, and women working outside the home leaned toward technocentrism, while teachers, academics, unemployed youth, religious officials, and women working in the home leaned toward ecocentrism.

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**BASIC ENVIRONMENTAL IDEOLOGIES**

By the early 1970s, two fundamentally different attitudes toward the environment had emerged. The technocentric view is hierarchical, manipulative, and managerial. The ecocentric view, by contrast, embraces community scale, natural rhythms, and a morality based on ecological principles. As the chart below shows, however, each view has two important variants. Ecocentrists may be divided into deep environmentalists and soft technologists. The former hold the unpopularity view that other life forms have as much right to exist as humans, while the latter take ecological relationships as a guide to a more socially compatible economy and see cultural and economic diversity as the cornerstone of local well-being. Both types envision a much more decentralized and egalitarian political and social order. Technocentrists may be divided into accommodators—individuals who are prepared to make some concessions to the environment but not to alter the existing political and social order of things—and cornucopians—confirmed optimists who believe that a properly functioning market, minimal government interference, and appropriate price signals will lead to an optimal outcome for society. See T. O’Riordan, Environmentalism (London: Pion, 1981).

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### Variations on the basic themes.

<p>| Ecocentrists | Technocentrists | accommodators—individuals who are prepared to make some concessions to the environment but not to alter the existing political and social order of things—and cornucopians—confirmed optimists who believe that a properly functioning market, minimal government interference, and appropriate price signals will lead to an optimal outcome for society. See T. O’Riordan, Environmentalism (London: Pion, 1981). |</p>
<table>
<thead>
<tr>
<th>Deep Environmentalists</th>
<th>Soft technologists</th>
<th>Accommodators</th>
<th>Cornucopians</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack faith in modern, large-scale technology and its need for elitist expertise, central authority, and inherently undemocratic institutions</td>
<td>• Emphasize small scale (and hence community identity) in settlement, work, and leisure</td>
<td>• Believe that economic growth and resource exploitation can continue indefinitely given (a) a suitable price structure (possibly involving taxes, fees, and so forth), (b) the legal right to a minimum level of environmental quality; and (c) compensation for those who experience adverse environmental or social consequences</td>
<td>• Believe that humans can always find a way out of difficulties, either through politics, science, or technology</td>
</tr>
<tr>
<td>• Believe that ecological (and other natural) laws determine morality</td>
<td>• Accept the right of endangered species or unique landscapes to remain unmolested</td>
<td>• Accept new project appraisal techniques and decision review arrangements to allow for wider discussion and a genuine search for consensus among affected parties</td>
<td>• Believe that scientific and technological expertise is essential on matters of economic growth and public health and safety</td>
</tr>
<tr>
<td>• Recognize the intrinsic importance of nature to being fully human</td>
<td>• Emphasize small scale (and hence community identity) in settlement, work, and leisure</td>
<td>• Support effective environmental management agencies at the national and local level</td>
<td>• Accept growth as the legitimate goal of project appraisal and policy formulation</td>
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</tr>
<tr>
<td>• Believe that ecological (and other natural) laws determine morality</td>
<td>• Accept the right of endangered species or unique landscapes to remain unmolested</td>
<td>• Support effective environmental management agencies at the national and local level</td>
<td>• Are suspicious of attempts to widen participation in project appraisal and policy review</td>
</tr>
<tr>
<td>• Recognize the intrinsic importance of nature to being fully human</td>
<td>• Emphasize small scale (and hence community identity) in settlement, work, and leisure</td>
<td>• Support effective environmental management agencies at the national and local level</td>
<td>• Believe that any impediments can be overcome given the will, ingenuity, and sufficient resources (which arise from wealth)</td>
</tr>
</tbody>
</table>
Cotgrove believed that a combination of economic progress and the welfare state (strongest in Europe, but also true of the United States) had created a "post-industrial" class that rejected purely materialistic values. This line is underscored by the American political sociologist Ronald Inglehart, who argued that ecocentrism would become more and more prominent in a post-industrializing culture as the Earth Day generation assumed the roles originally played by technocrats.

Environmental Attitudes in Advanced Democracies

Although public opinion polls are sometimes flawed (with responses heavily influenced by the perceived purpose of the questions and particular prompts from the questioner), if undertaken consistently and professionally, they offer real insights into public attitudes toward important issues. The picture that emerges from long-running polls in the United States and the United Kingdom is one of remarkable consistency in environmental attitudes. On critical questions such as level of concern, willingness to pay for improved products and services, regulation, and concerted international action, polls reveal stable majority support. The best evidence comes from a series of U.S. polls summarized by Riley Dunlap. He concludes that "taken together, the results show that a majority—sometimes a large majority—of the U.S. public favors increased efforts by government to protect the environment and that only small minorities (ranging from 4 to 16 percent) favor reducing these efforts. Results such as these [suggest] that environmental protection has become a "consensual" issue in U.S. society, "a basic value that no major bloc of voters opposes." . . . "Anti-environmental values have no legitimacy in the public debate.""15

Although this consensus is broad—almost to the point of being a cultural norm—it does not necessarily translate into voting power and political pressure. This suggested to Dunlap that many people voice opinions and concerns that do not greatly affect their actual behavior. As noted earlier, environmentalism represents inherent contradictions, both within individuals and in society as a whole.

The situation in the United States differs from that in Europe in one important respect. In the United States, public concern about the environment was strongest in the 1970s, fell away in the 1980s, and rebounded in the early 1990s. This was partly a reflection of shifts in governmental philosophy and partly a result of the growing reliance on litigation to address environmental problems. In Europe, by contrast, public concern blossomed only in the late 1980s, though many regulatory innovations took place in the 1970s.

British opinion has been tracked by the MORI [Market and Opinion Research International] organization since late 1988 (see Figure 1 on this page). From these surveys it appears that the peak of public concern about the environment coincided with the June 1989 elections for the European Parliament. In those elections, 11 million people (8 percent of European Community voters) voted for green parties. In Britain, the proportion was 14 percent, and in a number of locations within the Community more than a quarter voted green.

Wolfgang Rüdig, a political scientist at the University of Strathclyde in Glasgow, examined this remarkable result in some detail and concluded that five factors were responsible: the mainstream parties had not responded to public concern and gave no indication of doing so; voters desired a common set of protective measures throughout Europe; the various national green parties had been
mobilizing for a number of years and their candidates were familiar; the German greens had succeeded in obtaining seats in parliament in 1983 and, despite internal strife, remained an effective political party; and Chernobyl, acid rain, and the emerging debate over global warming had alarmed voters. But the vote was “soft,” more an expression of concern than a real political commitment.\(^2\) The MORI surveys also show that since 1989 environmental concern has been on the wane, with worries about jobs, health care, education, and crime pushing it out.

Overall, the evidence from opinion polls across the world shows that environmental concern waxes and wanes, depending on the particular driving forces and circumstances (see Figure 2 below). Events of great moment, dramatizing the consequences of misregulation or uncaring greed as well as the sufferings of innocent people and the agony of our own internal contradictions, briefly create martyrs and attract media attention. Pressure groups then capitalize on this to lobby for reform, possibly with the assistance of those in the academic, business, and regulatory communities. But such events are relatively rare; most environmental degradation takes place quietly, far removed from public consciousness. To its credit, however, during the 1980s the media generally kept a running check on the “big” issues of nuclear power, acid rain, ozone depletion, and global warming. Figure 3 on page 25, for example, shows the way in which the Canadian media responded to global environmental issues from 1977 to 1990.

How much influence do the media actually exert on public values and behavior? The evidence from an enormous body of research indicates that individuals form their opinions from a combination of family and peer group influences, personal experience, and media reporting.\(^2\) Media coverage, of course, is filtered by both interest and knowledge. Although some environmental concerns are triggered by personal experiences such as ill health, more global concerns tend to be media driven, mostly by prolonged coverage and the linkage of problems to day-to-day behavior.

Of course, the media are not politically or ideologically neutral. The very nature of modern communications affects the stories they select and the messages they convey. Like other stories, environmental stories reflect the viewpoint of the editorial teams that prepare them as well as the power relations in the nation or locality. For example, one study of the Chernobyl nuclear accident analyzed how the media treated both the science and the public’s reactions. It concluded that the relationships between the regulatory agencies and media officials influenced just how the message of radioactive contamination was presented and that farmers’ responses were influenced by the way (personal or impersonal) in which they learned of the possible dangers.\(^2\)

All told, the key to the political dynamics of environmentalism appears to lie in the active concerns of the body politic—the people who become managers, reporters, architects, academics, labor leaders, or farm groups. Those concerns, in turn, depend on the steady aggregation of environmental awareness, fostered both by pressure groups and regular evidence that the society’s (continued on page 25)
current institutions are failing to respond adequately.

Environmental Attitudes in Developing Democracies

It is difficult to predict the environmental attitudes that will emerge in newly democratic or industrializing countries. As always, the evidence is somewhat ambiguous. For instance, a carefully designed survey of 30,000 people in 24 nations gave very wide-ranging results. What does appear, however, is a high concern in general, even in developing countries where arguably more pressing matters clamor for attention; this is true for all age groups and income classes, with a surprisingly large number anxious about the fate of the planet as a whole. Willingness to pay higher prices and to take some personal responsibility for improving environmental quality is also widespread.

The authors of the survey suggest that this is a junction of genuinely unsatisfactory environmental conditions, anxieties over the health and economic prospects of children, and the educational role of NGOs. They conclude that environmental quality is no longer seen as a post-materialist value and that environmental degradation is increasingly recognized as a direct threat to human health and welfare. Indeed, protecting one’s family from environmental hazard seems to be joining the provision of food, clothing, and shelter as a basic human goal.

The evidence thus suggests that there is a genuine propensity in the Third World to link environmental security to personal and economic security. In China, for instance, the post-Mao economic reforms have led to the emergence of a new bourgeoisie with little concern for environmental degradation, an enormous demand for labor-saving appliances and electronic equipment, and a desire for financial security and the educational advancement of their children. Yet the political rhetoric and the regulatory structures of environmental protection are also being put in place.

It is also increasingly evident that scientific interchange will be very important in opening up the public debate to the danger of institutional failure and environmental abuse in these important regions. Moreover, important pressure groups are forming in Eastern Europe and the former Soviet Union (and even in the very hostile environment of China) to educate, embarrass, criticize, and involve. Democracy and economic liberalization alone cannot transform environmental attitudes and beliefs. But they are a vital part of the institutional apparatus that must be in place if there is to be any empathy toward sustainable development.

A recent survey of the growth of grassroots NGOs in the Third World concluded that there may be more than 200,000 such groups serving more than 500 million people, many of them run by and for women. Forming cohesive networks across countries, they help to alleviate poverty, mobilize local action, and stem the worst effects of environmental degradation. This is the pragmatic face of community politics that Dunlap reported in his global survey.

Business Attitudes and Behavior

Business has rarely embraced environmentalism wholeheartedly, yet it is probably the single most important player in the transition to sustainabili-

Figure 3. Number of stories in Canadian newspapers on four environmental topics.

![Diagram showing the number of stories on different environmental topics from 1977 to 1989.](image)

NOTE: The extent and timing of press coverage of these issues reflects external events. For instance, acid rain received extensive coverage in the 1980s as a result of a long-running dispute over alleged U.S. pollution of Canadian sugar maples and lakes. Coverage of ozone depletion and global warming increased following adoption of the Montreal Protocol in 1987 and the Toronto conferences on climate change in 1988. Tropical deforestation took on a higher profile with satellite evidence of fires in the Amazon in the late 1980s.

ty. Business has a strong influence on political attitudes; it holds the key to innovative technology, efficiency in the use of materials, and full cost accounting; and, with its increasingly international focus, it can influence development patterns virtually anywhere on the globe. However, business can only contribute to a more sustainable future if it leads instead of just responding to pressure from regulators or NGOs and if it educates its customers, employees, and shareholders about our common environmental problems and responsibilities.

The MORI polls taken between 1990 and 1993 showed that around 40 percent of consumers in developed countries factor the environmental well. Environmental and social impact assessments are now commonplace for all major projects, by custom if not by law. Environmental auditing is also a powerful incentive. This is a growing management practice involving a systematic analysis of the burden that a company places on the environment, its record of compliance with environmental legislation, and its targets for improved performance, all of which are independently verified and made public.

In the European Community (EC), the driving force behind this practice is the Eco-Auditing and Management Scheme (EMAS), which is currently voluntary but soon to become mandatory. EMAS is loosely linked to other standardized methods of evaluating

However, ISO 14001 is far weaker than the other two, despite their being fairly flexible on the crucial issues of public reporting of attainment effort and formal dialogue with local interests and wider stakeholder organizations. As a result of pressure from U.S. industrial associations, ISO 14001 does not contain mandatory reporting, does not require any particular measures to be taken, and does not demand best practice as a basis for good management. Instead, it gives producers wide discretion, permitting many actions to be justified on cost-benefit grounds. Significantly, EMAS requires companies to ensure that their suppliers and distributors also comply with the standards they set. This gives industrial self-policing a long reach. In effect, suppliers and distributors have to institute audits of their own simply to operate. ISO 14001, by contrast, does not contain any such requirement.

The difference between U.S. and European views on corporate environmental performance lies more in the U.S. propensity for litigation than in actual freelancing. U.S. companies fear that any document that sets actual targets and timetables would encourage consumer and environmental interests to sue them for nonperformance. Although some companies are undoubtedly just using this as an excuse, even those honestly striving to produce a good environmental record are deterred by the threat of litigation.

A number of high-profile companies have “set up shop” environmentally in recent years, notably Volvo, Volkswagen, Citroen, Dow Chemical, Monsanto, ICI, Shell, British Airways, and National Westminster Bank. Many companies have published their environmental policies, issued environmental performance reports, and created advisory councils, both at headquarters and in the communities where they operate. Of course, companies benefit from good public relations and have an obvious interest in assuaging public concerns about environmental risks, lack of local procurement, hiring policies, and so forth. But

### ENVIRONMENTAL AUDITING SCHEMES

The Eco-Auditing and Management Scheme (EMAS) adopted by the European Community is a comprehensive program to improve the environmental performance of manufacturers in member countries. It has five separate elements:

**Initial environmental review**—Companies assess their performance in such key areas as the life-cycle impacts of their products and production processes, use of materials and energy, waste, management, worker safety, and involvement of the public in corporate decisionmaking.

**Environmental protection system**—Companies prepare a detailed environmental plan comprising general policy, specific goals, and an explicit environmental management system.

**Three-year audits**—Every three years, independent specialists assess company performance and the adequacy of management systems using widely published yardsticks.

**Environmental statements**—Every three years, companies prepare public statements detailing the types and amounts of pollutants they have released, the types and amounts of waste they have generated, and their use of materials and energy.

**Validation and disclosure**—These reports are reviewed for accuracy by accredited environmental auditors and then released to the public and “competent authorities.”

BS 7750, an environmental auditing scheme in use in the United Kingdom, differs from EMAS in two important ways: It deals with individual plants rather than companies as a whole, and it focuses on particular manufacturing practices rather than operations overall. Thus, complying with BS 7750 tends to be more difficult than complying with EMAS but also possesses more public relations value.

In lieu of participating in programs of this sort, some companies are drawing up their own environmental management schemes. Eventually, every company will probably be expected to perform some sort of comprehensive environmental audit. How much this will contribute to sustainable production is not yet clear, but the whole process should raise corporate consciousness of sustainability, both as a social and as an ecological concept.

Consequences into their purchasing decisions. To some extent, pressure from consumers has led business to take a fresh look at its product stewardship. But other factors are at work here as quality and management performance, such as the British BS 7750 and the International Organization for Standardization’s ISO 14001 (see the box above for details).
this is by no means their only motivation. They can save money by good housekeeping in the areas of energy use, waste, and products that may come to haunt them in later years. A good example is the so-called endocrine disruptors, hormone disrupting chemicals that may be linked to fertility suppression.29 This potentially serious problem, involving a large number of chemicals across a huge swath of industry, may well be avoided by rigorous application of the precautionary principle articulated by environmental scientists and others.29

One form of business involvement that could become important is the regulatory compact. This is a voluntary agreement through which an entire industry accepts specific performance standards in areas such as emissions of carbon dioxide, releases of toxic substances, and energy performance. Such compacts have risks, however: Because they are purely voluntary, there is little opportunity for legal redress in the event of noncompliance. In essence, they require regulators to take a more "hands off" approach, accepting the international view on best practice and relying heavily on community advisory panels, industrial performance audits, and stakeholder pressure for enforcement. Already the Dutch and German chemical industries are seeking such arrangements for carbon dioxide emissions to avoid possible new carbon taxes. Similarly, a potential EC tax on volatile organic compounds is leading companies to adopt voluntary schemes to reduce solvent emissions.

Compacts of this nature are also occurring outside Europe. For example, the Chemical Manufacturers Association (CMA) in the United States has adopted a wide-ranging "responsible care" program that sets targets for energy efficiency, toxic emissions reduction, product stewardship, manager and operator training, and improved community relations. In British Columbia, the forestry industry has established a code of good environmental practice that reduces clear cutting and slope erosion and protects vulnerable watercourses and other ecosystems. These compacts are sufficiently strong that they create a corporate commitment even in the face of deregulation efforts. For example, CMA recently issued a statement deploiring the attempts of the Wise Use movement to "plunder the regulatory landscape."30 Such responses could prove invaluable in the shift to a more sustainable future.

Civil Disobedience and Environmental Backlash

Environmental activism is by no means always legal or peaceful. There has always been an element of radicalism among ecocentrists (though many believe passionately in nonviolence and obeying the law), and a growing number of people are disenchanted with democratic governments that seem dominated by powerful special interests. This anti-establishment viewpoint is beginning to gain ground, particularly in Europe. To date, there has been little research on this trend, but it appears to embrace three distinct approaches to environmental redress: activism, direct action, and revolutionary action. (For the full spectrum of approaches to environmental problems, see Figure 4 on page 28.)

The most violent group, those engaged in revolutionary action, usually number only a few hundred individuals in any one country. But because these people are determined,
### Figure 4. The spectrum of environmentally related political activity.

<table>
<thead>
<tr>
<th>Ordinary Political Participation</th>
<th>Passive Lobbying</th>
<th>Active Support</th>
<th>Activism</th>
<th>Direct Action</th>
<th>Revolutionary Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Following events in the media</td>
<td>• Letter writing</td>
<td>• Attending meetings and demonstrations</td>
<td>• Organizing events, boycotts, and lobbying efforts</td>
<td>• Picketing and committing acts of obstruction</td>
<td>• Engaging in complete civil disobedience, sabotage, and terrorism</td>
</tr>
<tr>
<td>• Voting in local and national elections</td>
<td>• Signing petitions</td>
<td>• Leafleting and collecting money</td>
<td>• Doing research and writing</td>
<td>• Engaging in ethical shoplifting</td>
<td></td>
</tr>
<tr>
<td>• Responding to surveys and questionnaires</td>
<td>• Joining pressure groups</td>
<td>• Boycotting goods, companies, or institutions</td>
<td>• Organizing campaigns and fund raising</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Making donations</td>
<td></td>
<td>• Lobbying</td>
<td>• Engaging in ethical shoplifting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Lecturing and public speaking</td>
<td>• Engaging in ethical shoplifting</td>
<td></td>
</tr>
</tbody>
</table>

NOTE: These categories are intended to reflect the different degrees of commitment to environmental change. The particular category in which an activity is placed is necessarily somewhat arbitrary. For example, although boycotting could be considered a form of direct action, it is placed under "Active Support" because it is essentially nonconfrontational. Note also that although some individuals and groups may fall within a single category, many will not.

“stolen” from indigenous people in the Amazon and take them to the police. Such tactics have caused many retail chains to look more closely at the sources of their merchandise.

Consumer boycotts, a type of activism, have also been effective in changing industrial and governmental practices. Such boycotts are most potent where an unpopular issue is unambiguously associated with one company or country, purchase of the targeted goods is easy to avoid, huge losses can occur in a matter of days or weeks, and adverse public relations will taint the company or country for a long time. This tactic was used in the German supermarket boycott of Norwegian goods (to stop Norway’s “scientific” culling of Minke whales) and in the boycott of Shell gasoline stations (following Shell’s refusal to dispose of the redundant Brent Spar oil platform safely and on land rather than in the Atlantic). Such events are patchy and are not indicative of fundamental consumer changes, but they do help to alter industrial culture.

### Outlook

It is not easy to say how society might change its beliefs and activities to further sustainable development. There is little agreement as to what a sustainable society would look like—whether it would be highly regulated or decentralized, whether it would follow market principles or burden-sharing strategies, and whether its priorities would be primarily ecological or social. As Figure 5 on page 29 suggests, there are several degrees of sustainability and no single pathway to a fully sustainable state. The most realistic course could be a series of transitional states involving purposeful shifts in political structure, social ethos, economic valuation and taxation, and educational content, all designed to reinforce each other.

One can, however, pinpoint some of the changes in attitudes that will be required to move toward sustainability. First and foremost is a greater commitment to equity, social justice, burden sharing, and paying off past ecological debts. This will be very difficult to attain because people’s immediate self-interest will have to yield to a broader and more enduring concept of well-being, one that embraces both future generations and nonhuman forms of life. Next comes a radically different conception of economic goals, one that favors reuse and recycling (in consumption) and sustainability and ecologically supportive employment (in production). Achieving this will require reeducating consumers, shareholders, and the financial sector, along with imposing ecotaxes to redirect business activity and create a “civil income” to finance environmental projects. Finally, there must be greater recognition of the important links between the local and global economies through informal networks of civic action.

Can we do this? One can only be cautiously optimistic, despite the efforts now being made to realize these encouraging visions. The fundamental problem remains that, for the most part, beliefs and behavior are not yet in sync with the notion of sustainability. For all its merits, democracy is not ideally suited to promote global habitability and the interests of generations yet to come. And although there is a slow shift toward the lower levels in Figure 5, it is not yet fast enough to offset the social, economic, and environmental trends working against sustainability. Even so, Earth Day 2020 will undoubtedly see a flowering of high-technology environmental management, less waste per unit of effort, more economic and social decentralization, and a greater popular awareness of the global predicament than there is today. By then, sustainability, in
terms of lightening the load each person makes on the environment and society, may be far less of a distant goal.

NOTES


6. Ibid., page 184.


8. Ibid.


10. Ibid., page 301.


12. These points cover a vast literature that is by no means in agreement. For a useful interpretation of environmental ideologies, see D. Pepper, The Historical Roots of Environmentalism (London: Routledge, 1985).


20. Ibid.


24. Ibid., page 37.


29. For a review of this principle, see T. O’Riordan and J. Cameron, eds., Interpreting the Precautionary Principle (London: Earthscan Publications, 1994).

30. Fred Weber, executive director, Chemical Manufacturers Association, Washington, D.C., personal communication with author, 15 February 1995. For more on the Wise Use movement, see the article by Phil Bray on page 16 of this issue.


Figure 5. The transition to sustainability.

<table>
<thead>
<tr>
<th>Stage 1: Very weak sustainability</th>
<th>Stage 2: Weak sustainability</th>
<th>Stage 3: Strong sustainability</th>
<th>Stage 4: Very strong sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Environmental Policy</strong></td>
<td><strong>Economic Policy</strong></td>
<td><strong>Public Awareness</strong></td>
<td><strong>Public Discourse</strong></td>
</tr>
<tr>
<td>Lip service to policy integration</td>
<td>Minor tinkering with economic instruments on a case-by-case basis; some reinvestment of income toward the goal of sustainability</td>
<td>Dim awareness and little media coverage</td>
<td>Corporatist discussion groups and consultation exercises</td>
</tr>
<tr>
<td>Formal policy integration and specific targets, backed by new institutional structures</td>
<td>Substantial restructuring of economic incentives; large-scale reinvestment of income toward the goal of sustainability</td>
<td>Wider public education involving &quot;perforated&quot; classroom walls</td>
<td>Roundtables, stakeholder group participation, and legislative surveillance</td>
</tr>
<tr>
<td>Binding policy integration and strong international agreements coupled to performance targets and indicators</td>
<td>Full valuations of the cost of living, green accounting, and creation of a &quot;civic income&quot; for social use</td>
<td>Curriculum integration, with local educational initiatives geared to community growth</td>
<td>Community involvement, pairing of initiatives in the developed and developing worlds</td>
</tr>
<tr>
<td>Strong international conventions, national duties of care, and statutory and cultural support</td>
<td>Formal shift to sustainability accounting locally, nationally, and internationally</td>
<td>Comprehensive cultural shift coupled with technological innovation and new community structures</td>
<td>Community-led initiatives become the norm</td>
</tr>
</tbody>
</table>

NOTE: This figure shows the four stages of sustainability. Each stage is characterized by particular environmental and economic policies, degree of public awareness, and type of public discourse. Generally speaking, moving from one stage to the next involves more serious environmental commitments, closer alignment of economic policy to environmental goals, greater public awareness of environmental problems and possible solutions, more democratic decision-making, and a greater role for local government.

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