

Accelerating Sustainable Development

By this time, most readers may have noticed the expanded focus and new design of *Environment* as we become a magazine of science and policy for sustainable development. What may be less clear is how the world is coping with its attainment. Two sets of widely recognized sustainable development goals—in the short term (2015), those of the United Nations Millennium Declaration, and in the long term (2050), those of the sustainability transition of the world's Academies of Science—appear to be doable in theory but under current practice are well out of reach.

To mark the millennium, the General Assembly of the United Nations adopted a set of 60 short-term goals that fall under seven overarching categories, including development, hunger, and poverty; the environment; and Africa's specific needs. Many of these goals have specific targets, such as cutting hunger in half or insuring universal primary school education by 2015. Progress has been made in cutting poverty but less so in hunger—and in Africa, poverty and hunger keep rising.

When the U.S. National Academy of Sciences' Board on Sustainable Development first reviewed the complexity of the sustainable development literature, it concluded, "The primary goals of a transition toward sustainability over the next two generations should be to meet the needs of a much larger stabilizing human population, to sustain the life support systems of the planet, and to substantially reduce hunger and poverty."¹ To see whether such goals were attainable, the board used long-term scenarios of hunger and carbon emissions and found that these objectives could, indeed, be accomplished. Yet in the years since the study, hunger has worsened and carbon emissions have continued to increase.

To meet either sets of goals, the positive drivers of sustainable development, especially collective action, will need to be accelerated beyond the slow, incremental, and piecemeal. Looking for examples of accelerated change, individual actions come most readily to mind: Smoking, drunk driving, seat-belt use, and littering are all examples of individual behaviors that have undergone relatively rapid changes in many countries. There are also examples of abrupt and accelerated action in response to particular events. For example, the Three Mile Island nuclear accident, the Exxon Valdez oil spill, the discovery of the ozone hole, and the 9/11 terrorist attacks are all examples of powerful, focusing, and galvanizing events that led to abrupt shifts in national and international policies, priorities, and actions. Even long-term, broad social movements, such as civil rights in the United States, were greatly catalyzed by defining moments like Martin Luther King Jr.'s "I have a

dream" speech and televised images of dogs and water cannons attacking peaceful marchers in Birmingham, Alabama.

These accelerations in collective action often derive from at least four conditions: public values and attitudes, vivid imagery (focusing events), ready institutions and organizations, and available solutions. Most requisite public values and attitudes regarding sustainability are already in place. Thousands of organizations are dedicated or partially focused on various aspects of sustainable development, including governments, corporations, and civil society. Further, many of the solutions are already at hand. But sustainability encompasses many diverse problems, each of which may or may not have a defin-

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ing, compelling image. And overall, the terms "sustainable development" or "sustainability" lack either a strong negative or positive image, and some argue that the concepts themselves are problematic.

Two important markers might signal a takeoff for a sustainability transition. The first would be accelerated action on global climate change. Climate change is almost unique because it is a systemic global problem that involves or will affect most of the subcomponents of sustainable development such as water, energy, health, agriculture, and biodiversity. A second marker would be accelerated action on African population, food security, poverty, health, and institutions: Sub-Saharan Africa uniquely lags the progress evident on other continents. A significant improvement of life conditions in this region would indicate an important shift in world priorities and the acceleration of human development. There are modest signs of accelerated action in both of these domains, and we hope they signal more rapid change.

—Robert W. Kates, Anthony A. Leiserowitz,
and Thomas M. Parris

1. National Research Council, Policy Division, Board on Sustainable Development, *Our Common Journey: A Transition toward Sustainability* (Washington, DC: National Academy Press, 1999), 31.