

The Resourceful Earth

The Resourceful Earth: A Response to Global 2000.
Edited by Julian L. Simon and Herman Kahn.
New York, Basil Blackwell Inc., 1984.

IN 1980, the Carter Administration issued a study called *Global 2000*. Written by officials of various agencies and coordinated by the President's Council on Environmental Quality, the study warned that if present trends continue, the year 2000 will arrive with too many people, more pollution than we have today, and serious stresses on resources. As a result, the world's people will be "poorer in many ways than they are today."

The Resourceful Earth is a response and a rebuttal to that grim study. Edited by economist Julian L. Simon and the late Herman Kahn, it is a compendium of articles by respected academics assessing trends in population, resources, and the environment—the same issues treated by *Global 2000*. The authors all take a more optimistic view of the world's future than the one taken by the authors of *Global 2000*.

The contrast between these studies illustrates the fact that experts can disagree, sometimes strongly, over what history tells us, what is going on at present, and especially over what the future holds. But it also suggests that independent analyses are more sober and realistic than those written by government agencies.

While most of the chapters focus on analysis of data, many also critique the conclusions of *Global 2000*, and the criticisms tend to be along the same lines. For example, Roger Sedjo and Marion Clawson, writing about global forests, observe that the study's

estimates of tropical deforestation are based on "suppositions" about the rate of conversion of forests by farmers, not on actual empirical estimates of changes in forest land. Mark Perlman undermines the credibility of the *Global 2000* population forecasts by noting that the rate of growth of the world's population has "already fallen from its peak of about 1.8 percent a year, a fall which *Global 2000* projected to occur only by 2000." John P. Wise says that the predictions in the *Global 2000* of world fish harvests have two serious defects—"simple assertions, unsupported by analysis" and "inconsistencies."

Julian Simon's hard-hitting 49-page introduction summarizes these critiques by saying that the *Global 2000* report claimed to forecast on the basis of trends, but instead drew "far-reaching conclusions" on the basis of little evidence. Moreover, where the study did analyze trends, says Simon, it tended to weight recent observations more heavily than long-run trends. And it relied on "inappropriate" assumptions. For example, its prediction that food prices will double in real terms was largely based on predictions that energy prices would go up—predictions that

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are not only highly questionable, but not nearly as germane to food production as would be fertilizer prices, which have been falling since the 1970s.

Some of the contributors would probably emphasize different points than those singled out by Simon. Each author, however, was allowed to review Simon's work and invited to publish a statement of dissent at the end of the book. The only dissenting author was Bernard Cohen, author of the chapter on nuclear power, who is worried that the U.S. will suffer severely if nuclear power continues to be stifled. William J. Baumol and Wallace E. Oates, whose previously published work on long-run environmental changes is included, noted in a footnote that they "should not be assumed to subscribe to all the conclusions reached in this report."

As Simon mentions in his introduction, a report such as *Global 2000*, emanating as it did from government agencies, should be expected to emphasize problems. That is because agency career personnel naturally believe in the importance of their "missions" and their professional pride is reinforced by the incentives of career advancement and personal interest. Problems they can document will justify continuation or even growth in their agency budgets. Crises they can find or predict can justify substantial new programs and large increments to their budgets.

The experience of the senior author of this review as a member of the first Reagan Administration's Global Issues Working Group confirms this tendency. While most agency career professionals are highly competent and honest, bias enters their outlook when they interpret scientific information. Since top scientists often disagree, anyone responsible for collecting and synthesizing scientific information will see most clearly what he or she most wants to see. For those working in government agencies this means, almost inevitably, seeing problems.

Moreover, such career officials play into the hands of political appointees in an administration ideologically committed to environmental activism, as the Carter Ad-

ministration was. The combination of agency bias and political ideology resulted in an alarmist report about the world's future.

Such a report tends to become a call for government action, and indeed it was followed by *Global Future: Time to Act*, a report replete with recommendations for new central planning initiatives. Simon argues cogently against the central planning "solutions" proposed to solve the "crises" that *Global 2000* warned about.

Not only is there a distinct lack of real crises, but central planning approaches are generally doomed to failure. This is due partly to the fact that technical advances and individual responses to problems continually change the outlook, ruining the forecasts on which the plans are based—sometimes even before the forecasts are released. In his chapter on energy, William Brown lists ten forecasts about the future of petroleum, showing that they were completely wrong. For example, in 1920 the Director of the U.S. Geological Survey said that peak domestic production of oil had almost been reached—but in 1948, production was more than four times the output of 1920. The best experts frequently err in predicting the future.

Government plans not only reflect quickly-outmoded forecasts, but they lead to programs whose operators then have a vested interest in justifying their continuation. Regulations, subsidies, and taxes to solve a non-problem often make the situation worse. As our colleague John Baden has pointed out, when the Rural Electrification Administration subsidized electric power delivery to the remotest reaches it virtually killed a thriving wind-energy industry in the 1920s. In the Pacific Northwest, politics kept electricity rates so low and so inappropriately structured that enormous amounts of power were squandered. Mutually beneficial trades of the rights to power were not allowed, since "profits" would occur. This led to the infamous WPPSS ("Whoops") fiasco of recent years, in which four nuclear plants were started and abandoned, at a cost of several billions of dollars and the largest

municipal bond default in the nation's history. Further east, federal laws to force sulfur removal from coal-fired power plants—rather than allowing power plants to meet environmental standards by using low-sulfur coal—protect powerful eastern coal interests at the expense of both the environment and non-organized power consumers.

To determine the role of government in resource management, we can use the same logic that environmentalists apply in arguing for genetic diversity and the preservation of endangered species. We don't know what the future holds, so we need a diversity of approaches—just as ecologically we need a diversity of species—so that we don't have to rely on a monolithic plan that is likely to be wrong. Indeed, in their chapter on the loss of species, Simon and Aaron Wildavsky argue that any plan to save existing species will actually reduce the evolution and introduction of new species. Similarly, a government plan will crowd out the diversity of alternative plans that will exist in a market setting.

The authors of *The Resourceful Earth* are more optimistic than those who wrote

Global 2000 partly because they have more humility about the ability of any single person or group to foresee or to construct solutions to apparent problems. This humility gives them little faith in the central planners, but more faith in the sum total of individual actions. Individual actions will frequently be wrong, but when the full range of human ingenuity is available to address problems, someone is likely to discover the best course of action.

Past trends confirm this process. For example, in spite of periodic cries of alarm, the world has not run out of any significant natural resource. Entrepreneurs respond to the rising price of a declining resource—such as whale oil in the nineteenth century—and come up with a better substitute—in this case, petroleum. Simon and at least some of the chapter authors, then, recognize that a key policy guideline is to avoid stifling the multitude of ideas. That means relying primarily on voluntary, market settings. There, problem-solving is done at private expense and mistakes are quickly recognized because no one wants to throw good money after bad. Those who guess right, of course, grow in wealth and influence. The nation and the world benefit from their discoveries.